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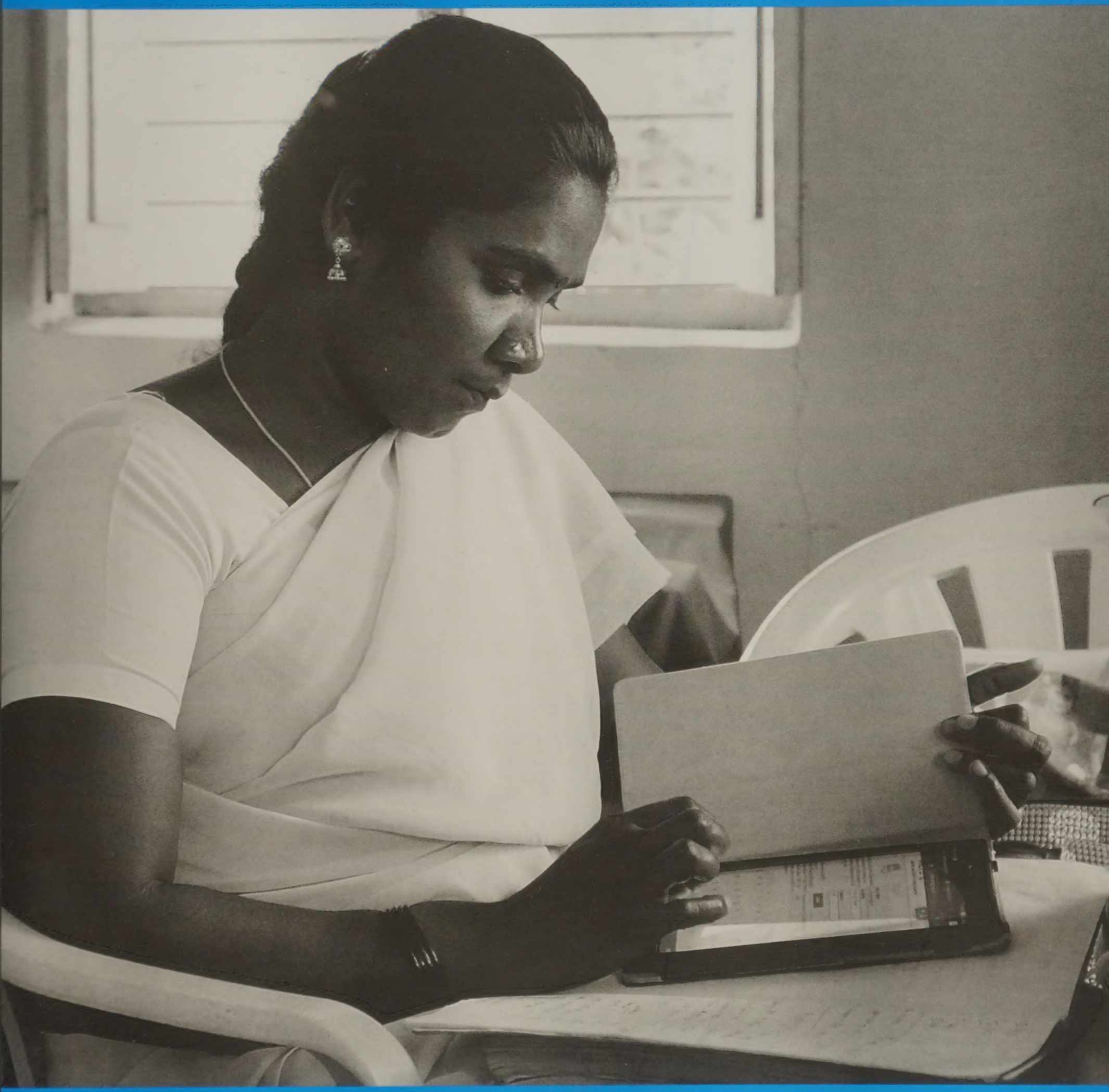

TIME AND MOTION STUDY AMONG FRONTLINE HEALTH WORKERS IN ANDHRA PRADESH AND TELANGANA (2016)

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TIME AND MOTION STUDY AMONG FRONTLINE HEALTH WORKERS IN ANDHRA PRADESH AND TELANGANA (2016)

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This publication is a process document for an empirical study. It has been prepared to document the various processes which fed into the planning, execution and management of the study.

Division for Child Studies (DCS), Centre for Economic and Social Studies (CESS) with funding support from Reproductive and Child Health programme and Policy, Planning and Evaluation Programme, UNICEF Hyderabad Field Office, had undertaken study 'Time and Motion Study among frontline health workers in Andhra Pradesh and Telangana.'

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The work was carried out under the general direction of Prof. S. Galab, Director CESS, Dr. Sanjeev Upadhyaya, Health Specialist and Mr. Deepak Kumar Dey, Social Policy Specialist UNICEF Hyderabad Field Office, Prof. S. Vijay Kumar, Head, Division for Child Studies, CESS, Hyderabad.

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ABBREVIATIONS

AP	Andhra Pradesh
ANC	Ante-natal check up
AWW	Anganwadi Worker
AWH	Anganwadi Helper
ASHA	Accredited Social Health Activist
ANM	Auxiliary Nurse Midwife
AWC	Anganwadi Centres
CHC	Community Health Centre
CDPO	Child Development and Protection Officer
DLHS	District Level household Survey
DMHO	District Medical and Health Officer
FLHW	Frontline health workers
FGD	Focused group discussions
ICDS	Integrated Child Development Services
ITDA	Integrated Tribal Development Agency
JSY	Janani Suraksha Yojna
MPHW-M	Multipurpose Health Worker-Male
MPHA-F	Multipurpose Health Assistant-Female
MO	Medical Officer
NRHM	National Rural Health Mission
NHD	Nutrition and Health Day
PHC	Primary Health Centre
PHN	Public Health Nurse
PNC	Post-natal check up
SPHO	Senior Public Health Officer
SC	Sub-centre
TS	Telangana
TAM	Time and Motion
TB	Tuberculosis
UHC	Universal Health Coverage
UID	Universal Immunisation Day
WDCW	Women Development and Child Welfare Department
WHO	World Health Organisation

KHAMMAM

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1. INTRODUCTION

In the year 2014,a joint initiative between UNICEF Hyderabad Field Office for the states of Andhra Pradesh, Telangana and Karnataka and the Centre for Economic and Social Studies (CESS), Hyderabad initiated a field study under the leadership of Dr. K. Sujatha Rao, former Secretary of Health, Government of India (GoI). The study was conceptualised in 2014 in consultation with the erstwhile Principal Secretary of Health, Medical and Family Welfare for Andhra Pradesh.

"Through literature it is clearly evident that frontline health workers (FLHWs) have been at the forefront of health service delivery in rural and difficult to reach settings. They have been in existence right from the beginning as community health workers in various forms like ASHAs introduced through NRHM, employed workers like ANMs, Male Health Workers etc. Moreover, if records of last 5-7 years are closely seen then one will clearly find a magnanimous increase in the number of health programmes catering to different aspects of public health. Workers have been the same, though with the acute crunch of manpower on the ground, the responsibilities as per newer programmes are ever increasing. Though there is a job description defined for these workers the on ground operations are as per feasibility and unscheduled tasks which are assigned by the higher administration. Moreover, curiosity centred around which health components or domains were prioritised the most by these on ground workers. Immunisation is one key programme which is known to be widely popular and taken up assiduously by frontline health workers. There has been anecdotal evidence that much of the time of these workers are invested in reporting and recording. But validation of the same through a structured research inquiry was a must. The Time and Motion concept popularly used in management research was found to be a good way of providing a scientific enquiry base to the research concerns expressed above. It was clearly foreseen that using of the Time and Motion concept in health research with frontline health workers could clearly demonstrate time records for each of the activities performed by these workers. Usage of technology with GPS function was conceptualised at the heart of the study. Technology was seen as a good means to organise voluminous data. GPS usage was well envisaged for monitoring of the study".

A Time and Motion (TAM) study was undertaken to develop a pragmatic understanding about what goes into the functioning and performance of frontline health workers (FLHWs). The TAM study aimed to analyse the amount of time FLHWs and Anganwadi Workers (AWWs) spend on specific activities as per their job description, the distance travelled by these workers during day-to-day activities, and the physiologic impact of the work environment upon these workers. From Accredited Social Health Activists (ASHAs), the effort was to gain in-depth understanding about the facilitating factors and barriers in work time utilisation and activities.

Over a span of time, after a series of formal and informal consultations with experts, various refinements were incorporated in the study approach, research methodology and overall strategy.

The TAM study was undertaken in Srikakulam and Chittoor districts from Andhra Pradesh (AP) and Khammam district from Telangana (TS).

1. RATIONALE

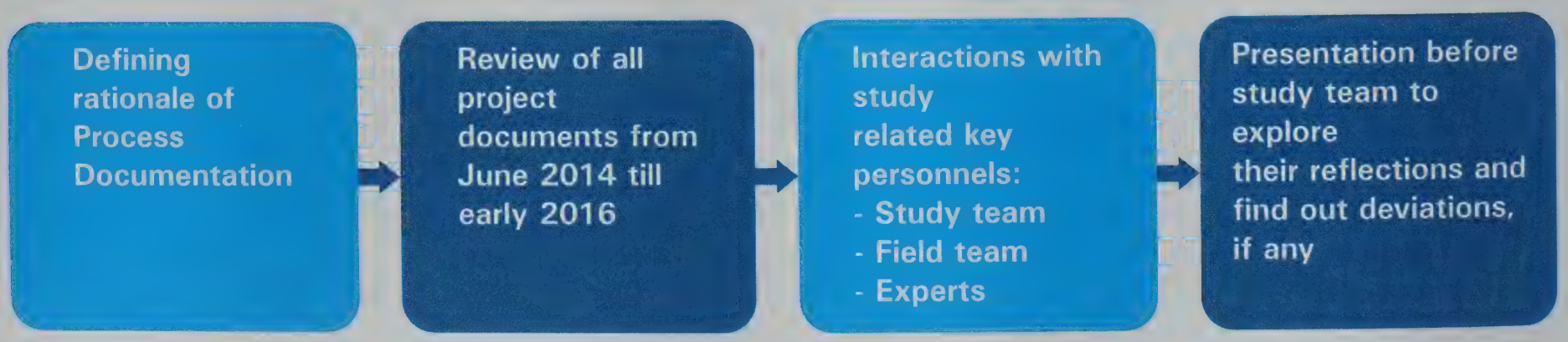
The present TAM study undertaken across AP and TS is of its kind in the domain of health systems research. In the Indian context, it was observed that the TAM studies had been conducted in the health sector, mainly in hospital settings, and in only a few states like Kerala, Gujarat, West Bengal and Karnataka. These studies were conducted among Public Health Nurses (PHNs; Gujarat), women health workers (Kerala), outpatient clinics (West Bengal) etc. It was recorded that '*workload is undoubtedly high across workers' cadres which is mainly because of the introduction of new programmes from time to time and vacant positions*.' A clear need for good time management had been articulated. The study undertaken in Gujarat clearly found that at least 38 per cent of the time during field days is spent in travel.

Having said that, the present TAM study has been undertaken at the community level with FLHWs and AWWs. This has come with a different set of learnings, various opportunities to evolve the study and challenges in the process of accomplishing the same.

2. TAM PROCESS DOCUMENTATION

The rationale of the TAM process documentation was documenting how the study was accomplished by the study team across the two states and documenting various processes involved in the study. The document is also aimed towards sharing of an experiential learning derived as part of the execution of the TAM study. A systematic procedure was adopted in order to accomplish the same (Figure 1).

Figure 1: Steps followed in the TAM study process documentation



2. AIMS AND OBJECTIVES

1. STUDY OBJECTIVES

TAM study was conceptualised in order to address the following key objectives:

A. To understand time utilisation by FLHWs, ASHA and AWWs while performing various activities based on job descriptions:-

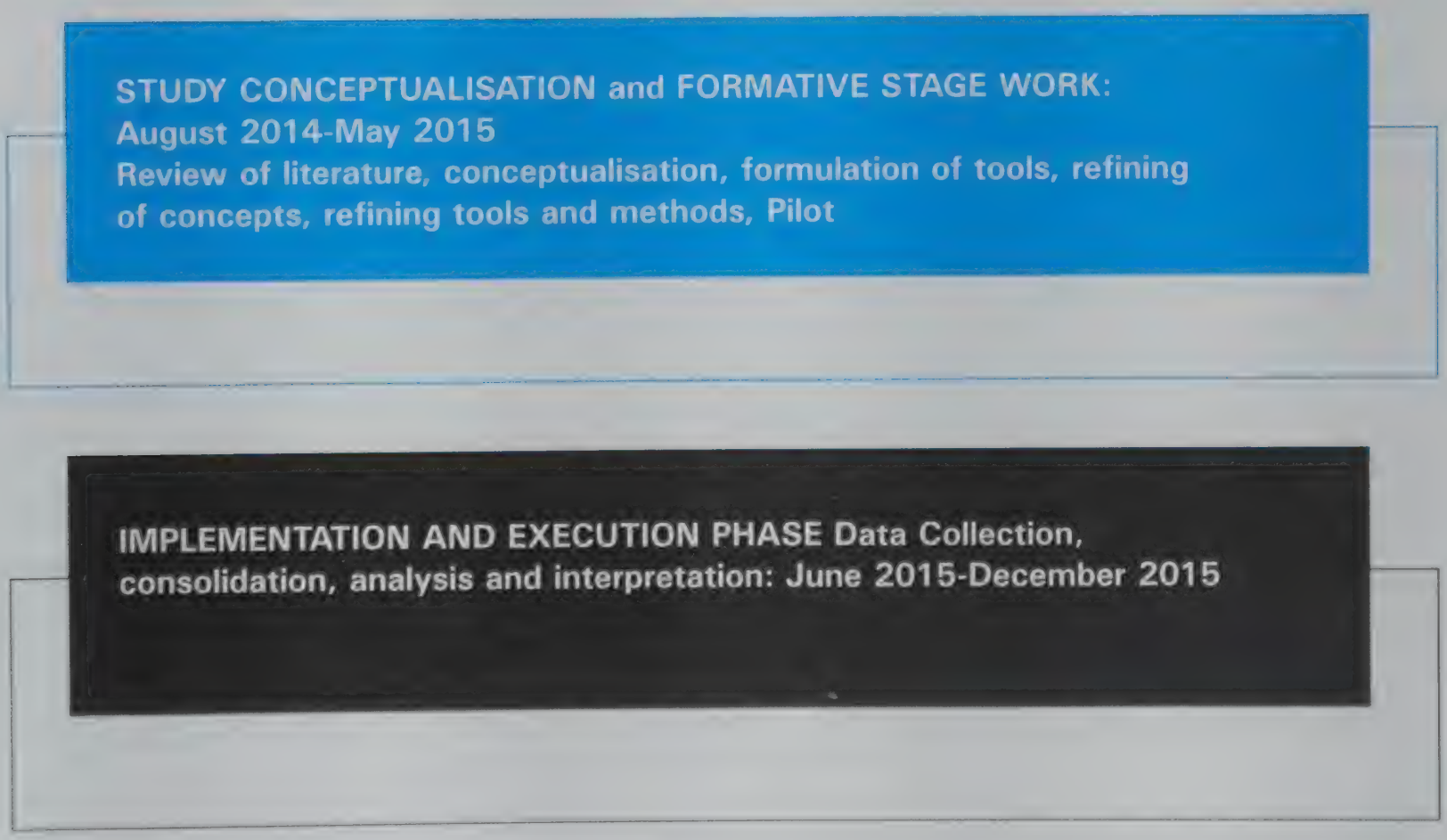
- To quantify the time utilisation by FLHWs and AWWs in various activities by using the TAM study
- To understand the facilitating factors, barriers and specific reasons for their pattern of time utilisation
- To explore factors both facilitating and creating barriers in work time utilisation by ASHAs

B. To explore the perceptions and suggestions from the Health and Women Development and Child Welfare (WDCW) (Integrated Child Development Scheme; ICDS) Department officials at the district, sub-district and facility level about pattern of time spent by FLHWs, AWWs and ASHAs

C. To offer recommendations to policymakers/administrators and relevant stakeholders for the effective utilisation of time by FLHWs, AWWs and ASHAs

The TAM Study can be categorised into two phases (Figure 2), the details of which are discussed in the following sections.

Figure 2: Phases in TAM study



CHITTOOR

PHASE ONE

STUDY CONCEPTUALISATION AND FORMATIVE STAGE

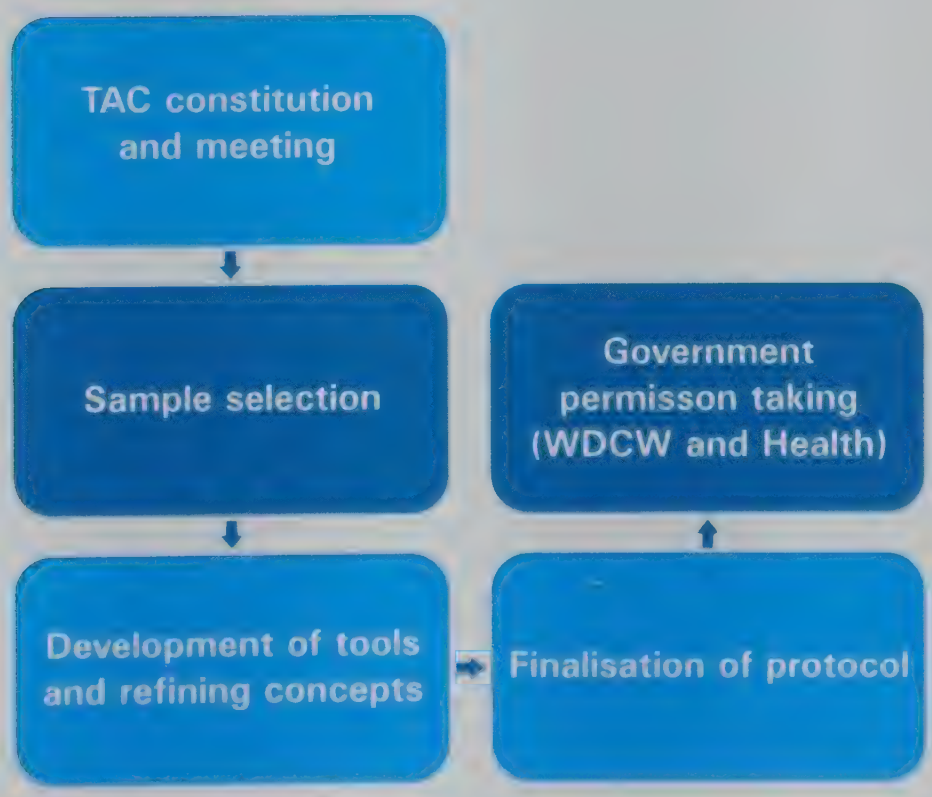
3. PHASE ONE - STUDY CONCEPTUALISATION AND FORMATIVE STAGE

The TAM study was conceptualised in order to understand the role and utilisation of time by grassroots public health service providers, i.e. FLHWs like ANMs, Male Multipurpose Health Workers (MPHW-M) and ASHAs. The AWWs from the ICDS scheme, WDCW were also part of the study. The premise being that findings from this research would help to develop an understanding about the processes and extent of translation of the stated job responsibilities into practice. This will help in analysing the need for any modifications or support to be provided to FLHWs and AWWs in order to enable them in not only better management of time but also in enhancing their overall work performance. This becomes even more crucial in the realm of the existing human resource crunch especially in remote rural areas and the limited coverage of health services at the grass-root especially in rural settings. It is believed that the improved functioning of these workers will further help in addressing core issues related to Maternal and Child Health (MCH) and general health of the village community (including adolescents, men and old age people). Improvement in MCH will eventually contribute to the fulfilment of the Millennium Development Goals (MDGs) 4 and Sustainable Development Goals (SDGs).

The study underwent a ten month long first phase, beginning from August 2014 to May 2015, where various proposals in reference to the study underwent a series of modifications and reiterations through various technical and programmatic processes. Narrative details of the same are discussed in the following sections. An illustration of the same is given below (Figure 3).

It is important to note here that each of the activities undertaken fed into the next level of work, refining the TAM study and its overall processes.

Figure 3: TAM study Phase One



1.TECHNICAL ADVISORY COMMITTEE (TAC) CONSTITUTION AND MEETING

On 11th August 2014, the very first meeting of the Technical Advisory Committee (TAC) for the TAM study was held. TAC was headed by Dr. Sujatha Rao, (Retired IAS), Former Secretary-Health – GoI and a range of experts. It was a multi-disciplinary expert committee comprising of doctors, public health experts, social scientists, researchers, academicians and statisticians etc. Principal Secretaries/Commissioners from the Department of Health and WDCW (TS and AP) were the government representatives who continually supported the study.

The experts had clearly articulated the newness and timelines of the study and need for undertaking the same. They felt that the job responsibilities specified for FLHWs may need a thorough revision. With the introduction of newer health programmes and emerging public health concerns, and priorities, the time utilisation by these workers had undergone a drastic change over time. It is likely that the quantum of current responsibilities they have may have led to the disproportionate management of time available as suggested by many studies (Manna N et.al. 2014, Srinivasan K. and Sarma P S (2012), Sharma B., et al. (2010). Experts believe that the study would provide scientific output through which one could assess *'who is doing what and in how much time'*. The study would provide an opportunity to understand awareness, prioritisation and rationale for prioritisation of responsibilities along with the concurrent time allocation. The study also highlights case studies of FLHWs utilising their time efficiently thus capturing some of the best on field practices.

TAC decided that the study would be executed with two core objectives:

- To study the time spent across different activities as against the job description
- To assess the relationship between time allocation patterns of different FLHWs, AWWs and ASHAs

A consensus was built upon a basic study framework and a few important decisions were taken about the technical aspects and implementation of the study, details of which are mentioned below.

1.1 Workers inclusion: FLHWs, ASHAs, AWWs and AWHs

Experts decided that ANMs, MPHW-M and ASHAs from the Department of Health, and AWWs and Anganwadi Helpers (AWHs) from WDCW Department, would be observed during their activities and the consecutive timings would be recorded. Though ASHAs are voluntary workers, they were included since they are the most crucial agents at the village level delivering health services. Since, the health service system intersects very crucially with the ICDS scheme, the WDCW Department, AWWs and AWHs were included. Although during the later stages of the study's finalisation the AWHs were dropped and ASHAs were not observed for the TAM study, the ASHAs were brain-stormed with in depth, through Focused Group Discussions (FGD) about their job responsibilities and field level work (discussed later).

1.2 Sampling and sample size

Three districts were chosen across undivided AP ensuring that not only three different regions were represented, but the presence of integrated tribal development agencies (ITDA) or presence of a substantial percentage of tribal population was also ensured. After district selection, each of the districts was segmented into clusters - tribal clusters, non-tribal remote clusters and accessible clusters. Subsequently, on a random basis Primary Health Centres (PHCs) and Sub-Centres (SCs) within as well as ICDS Centres/Anganwadi Centres (AWCs) were selected following the criteria adopted for clustering the district. A final sample of workers was to be selected after gathering statistical information on human resources from each SC from the sampled PHCs (and AWCs within). Purposive sampling was done at this level.

A total of 108 workers were covered within the study purview at that point of time.

1.3 Concepts for methods

TAC discussed the research methodology in-depth which was revised over time as the study evolved. But, it certainly set the stage to begin with.

It was decided that each FLHW, ASHA, AWW and AWH under the study purview shall be observed closely for two continuous weeks. It was proposed that there would be two observers per worker to ensure gender balance. The female observer would observe the female workers while the male observer would take down notes and take care of any other arrangements without disturbing the actual observation process. The male observer would take the lead in observing the MPHW-M. It was strongly suggested that capacity building of the field data collection team should be done with role plays and hands on training in the field for practical experience. A detailed feedback session, after completion of training, was a must and should be planned in order to refine data collection strategies for the main study. TAC discussed the possibility of using GPS enabled technology in capturing movement and also monitoring the quality of data collection during the TAM study. They decided that the feasibility of the same should be tested during the pilot study. Many of these suggestions were further revised as the study evolved over time.

It was agreed that interviews of immediate health and ICDS supervisors, Child Development Project Officers (CDPOs) and Medical Officers (MOs) would be conducted to get their perspective on the working of FLHWs, ASHAs, AWWs and AWHs. The field strategy proposed at that point in time was to conduct the study in each district for four weeks simultaneously across selected PHCs and SCs.

With respect to devising processes for observing and recording activity and time data, various proposals were made. The main one being self-recording (maintaining of a dairy/workbook) by workers themselves. These could be then obtained from the study subjects and analysed. A major concern arose while proposing maintaining a self-recorded diary as workers already had an existing reporting load and giving them one more record to keep would certainly hamper their normal functioning. Moreover, an element of bias may also come while recording observations in this manner. This strategy was further refined as the study progressed and is discussed in the following sections.

At that stage itself, TAC recognised some of the crucial challenges which were likely to hinder the TAM study:

- Recording bias while observing FLHWs, ASHAs, AWWs and AWH maintained self-records
- ASHAs are voluntary health activists, unlike full time workers like ANMs, MPHW-M and AWWs. The challenge was to observe ASHAs provided they were residing in the village and did not have to work full time
- Inter-observer bias as there would be many observers in the study. It would be challenging to develop objectivity in the data collection tool

- Observer's bias which may set in due the observer's involvement in the worker's task. Maintaining objectivity by observers as much as possible while observing and not providing extra comfort or support maybe difficult in practice.

Taking into account multi-tasking by workers and allocating time for such tasks needed to be deliberated upon.

As the study progressed and transcended into phase two many of these challenges were addressed and mitigated in actual field work strategy. Undoubtedly there were constant re-iterations and reviews in order to discuss challenges and address the same with evolving field strategies.

2. SAMPLE SELECTION FOR THE TAM STUDY

Out of 13 districts of AP and 10 districts of TS, three districts where identified for the study: Srikakulam and Chittoor from AP and Khammam from Telangana. Only those districts were chosen which had either ITDAs or a substantial tribal population (at least 8% and above). Chittoor District was one of the exceptions to this criterion because of its demographic properties. Districts were further sub-divided into tribal and non-tribal remote clusters and accessible clusters. The reason for such segmentation was to know the effective time utilisation of service delivery and movement between different geographical locations. The assumption was that this would enable the flagging of important bottlenecks at the operational level and the coping mechanisms adopted by the FLHWs, ASHAs, AWWs and AWHs.

From each of the selected clusters, one PHC was randomly selected. Under that selected PHC, four SCs were selected on a random basis with one SC farthest from the PHC and another closest to PHC and the remaining two at intermediary distances. The sampling unit at the village level was based on the average distance from the PHC. It was proposed that from the selected villages, 12 ASHAs, four AWWs, and four AWHs; and from selected SCs 12 ANMs and four MPHW-M workers would be selected as the total sample from each district. From each PHC, human resource details of sample SCs would be obtained which would in turn enable in defining field level strategies. Hence, each district accounted for 36 respondents with a total of 108 respondents across three selected districts. The ANMs and MPHW-M were to be randomly chosen from the SCs identified, whereas the ASHAs, AWWs and AWHs were from the villages.

Village level sampling was accomplished for the study by September 2014with the help of an experienced statistician.

3. TOOL DEVELOPMENT AND REFINING OF CONCEPTS

3.1 Preliminary exploratory field visits to Medak and Rangareddy Districts: Inductive approach

The first rounds of preliminary field visits were undertaken during November-December 2014. In November, Kandi PHC, Sangareddy Mandal from Medak District was visited with subsequent visits to the attached SCs and interactions with ANMs, Staff Nurses, MOs, MPHW-M, AWWs and AWHs (from the AWC in a village near the SC).The Medak visit was succeeded by a field visit made in December to Moinabad Mandal in Rangareddy District. It was aimed specifically at gaining in-depth exposure about the functioning of AWCs and the nature of tasks performed by AWWs and AWHs.

The field visits were made to gain practical insights into the work schedule of and service delivery by FLHWs, ASHAs, AWWs and AWHs and gather information that would be helpful in drafting of tools. The visit enabled the exploring of in depth issues and concerns applicable in the actual field level functioning of these workers.

A brief interaction with the District Medical and Health Officer (DMHO) was also done which enabled in understanding what goes into health service delivery through the PHC level from the view point of higher level officials and also the pedagogy to be adopted for the interviews with higher officials. The visit also gave insights into tackling multi-tasking at the field level after an immunisation session at the SC level was observed.

During the visits it was ensured that at least one worker from each of the cadres was covered. A total of six workers (1stANM, 2ndANM, MPHW-M, ASHA, AWW, and AWH) were interacted with in a free flowing manner giving sufficient scope for open ended responses. These field interactions were made based upon the understanding gained through thematic readings and objectives of the study. A basic checklist was available with the project study personnel to guide their interactions and overall field visits.

Apart from interactions at least one entire day of the visit was devoted to narrative writing of the day using the paper, pen method, where in activities were observed for the day and noted down. Whenever there was a shift in activity a note about the same was mentioned in hand notes (Figure 4). A typical week was constructed for each of the workers based on recall from the last week. Similar inductive writing of the worker's day was done in the Gujarat TAM study as well.

At the day's end, the field notes yielded an exhaustive account of uncategorised activities performed by the worker which also comprised of additional tasks that were not really part of his/ her job description. For example, while observing the 2ndANM during immunisation day a couple of activities occurred which were broadly related with immunisation (setting of the table and instruments, seating mothers and their accompanying children in the SC, checking of records etc). There were also activities in between which remained largely unrecognised within the health purview like conflict resolving with the village community, consolidation of survey forms from other departments etc. It was realised that during the realm of multi-tasking though it was cumbersome to observe and time each and every activity individually, but if the ongoing activity was identified as a primary one with subsequent multi-tasked activities as secondary then it became easier to record. A consultation for dealing with multi-tasking was done with the 1st ANM, 2nd ANM and PHC MO as well, which gave further affirmation to the strategy.

Figure 4: Template from narrative writing of the worker's day: Cadre AWW

9:50 AM to 10:07 AM	An Anganwadi workers makes all the children to do prayer.
	After the prayer the worker had a small conversation with children which included the questions like whether the children had taken bath or not? and children replied that they did, with their water soap and jug, after the reply all the children clapped.
	As said by the worker the helper brought few children who were not present that day, the worker questioned the children that they had breakfast or not. The children reply what they ate.
	The worker said the children to wish the sir and madam good morning who have come.
	The worker asked a child who was absent the day before and the child said that he has gone to their village with his mother.
10:08 AM to 10:10 AM	The worker had taken the attendance of the children by their names and the children as to standup and reply to the worker. While taking attendance a child said that their friends Manish Govardan and Mahender were absent

Some major aspects, relevant to the study, which emerged from these visits, are listed below.

- Multitasking by workers with multiple focus and targets at the same time is a major challenge
- Supervision is a very vital component for workers' functioning and supervisors are very crucial links between field level workers and the MO at the PHC level
- A typical weekly schedule for each of the worker was based on the recall of the last week's activities and might not be correct
- A clear dimension of the physiological impact on work functioning especially from ANMs serving in tribal areas
- Crucial aspects with respect to the study's strategy were answered including direct observation of workers and tracking of movement by the persons accompanying them. Upon being asked their opinion worker's expressed no discomfort with the same
- Interaction with the MOs gave crucial insights about the nature of the work and the health workers' load from each of the cadres. A clearly marked distinctive role sharing between ANMs and MPHW-M was noticed

Exploratory field visits exposed some of the pros and cons of using an inductive approach in the main study. It was very easy to de-facto observe worker's tasks during the day and keep noting it down, but it was quite cumbersome to further categorise and analyse the raw list of these activities as per the job descriptions of these workers. Moreover, a couple of activities were totally out of the purview of the worker's functioning from a particular cadre. But, pen and paper based writing also helped in taking into account every task which constructs the worker's day based on the real ground situations. The prime approach for the study was further refined as the study progressed and interactions at various levels deepened.

3.2 Discussions with researchers who have conducted TAM studies in Ahmedabad and Bangalore

In the month of January 2015, a meeting was held with the TAM study team located in Bangalore. The rationale for the meeting was to clearly understand the data collection process adopted in the study and the role of technology in the study's execution. Dr. Sanjeev Upadhyaya, Mr. Deepak Dey from UNICEF and Ms. Neha Dwivedi from TAM/CESS represented the TAM study team from the States of AP and TS.

In Bangalore, the study was undertaken on a smaller scale (one PHC) largely among ANMs as part of the larger health policy research. They primarily used the deductive approach to data collected and used technology to facilitate recording through Android based software installed in tablets. The TAM team was given a demonstration of the same which led to the realisation that when there are a large number of activities to be recorded and for a larger sample, then tablets may make data collection easier provided proper structured algorithms are built in. The software was developed with pre-defined categories for activities against which the time was recorded. However, it was observed that they had a restricted list of categories whereas in view of the TAM study's objective an extensive list was needed, irrespective of the fact that many of those activities although part of the job description may not be actually performed by FLHWs, ASHAs, AWWs and AWHs. This listing also had to give sufficient scope to take into account an uncategorised list of activities that emerged through preliminary field visits, undertaken in November and December 2014. It was essential that these categories and sub-categories of activities after each pilot round be refined.

The Bangalore team used GPS technology to map the health workers' movements and also to monitor the validity of the data entries by the observers in order to prevent false entries. After this discussion, the idea of using GPS enabled technology and software programmes became a reality. The visit provided a clear insight into the technicalities involved in designing the software programme and its practical usage for the TAM study. One of the challenges clearly foreseen at that stage was the maintenance of software and tablets and periodic data storage as a backup. Moreover, concern was expressed about tablets failing to capture the GPS location if coverage was lost, which was duly addressed over time as the study progressed. In our study tablets were capturing GPS locations even without SIM cards through an inbuilt mechanism.

Following the Bangalore visit, the Gujarat TAM study team, led by Prof. Mavalankar, was met in Ahmedabad. Agency Dexter was also invited which undertook the field data collection for the Gujarat TAM study. A meeting was scheduled in order to understand the team's TAM study experience with district public health nurses. As shared, the study had used an inductive approach towards documenting field observations. The discussions yielded some interesting aspects which triggered an idea to refine the present TAM study and strategy. It was discussed that a deductive approach would certainly be an advantage as it made documentation and management of the data manageable and

was faster, thus there were fewer errors in recording time. But in the process a couple of activities might be left out for which the solution was to keep adding these activities under a new theme while analysing. It emerged that a thorough exploratory pilot using an inductive approach, taking a descriptive note of a worker's day may help take into account and categorise most of the activities. If a deductive approach was taken using the extensive listing of activities developed by the inductive process most activities would be covered. There would also be scope for taking notes and recording information not already coded or categorised. However, it was essential that both the strategies were tested in the field and the most feasible way be adopted for the main study.

Another concern was with respect to the observation of multi-tasking by workers. Prof. Mavalankar suggested either they all be counted under one broad category –primary activity, with approximate time log (say immunisation) or make a note of the multiple activities simultaneously as a side note. This implies, if primary activity, immunisation is multi-tasked with other activities like medicine distribution to sick villagers, record filling, talking to the village community, etc. then all of it should be noted down as a side note. Observations especially on days like NHD when not only multi-tasking is common but also multiple workers perform their activities at the same time are critical. For ease of the complete picture being taken into account, video recording could be done, but as this could have ethical concerns it was not explored further. It was decided that coupling observations with interviews (in-depth and key informant interviews) would be the most feasible mode of supplementing TAM observations keeping in view the nature of the TAM study. For key informant interviews, officials from the district to Mandal level through the sub-district level were identified across the health department and ICDS Scheme. Interviews were planned in order to cover all aspects related to performance of an activity in a given amount of time by the workers, also giving a deeper level of systemic understanding. It was proposed that interviews be undertaken with the same worker on the last day of observations once a rapport had been built with them. The same worker who did observations would also be interviewed in order to corroborate the TAM observations undertaken across the week.

The amount of time refinement needed for TAM observations was also deliberated upon. The options were either recording exact blocks of time or estimated time which may not be an exact point to point count. This implied that either a lump sum log of time for a primary activity say immunisation was recorded (say 30 minutes) or whenever an activity shifted then the exact time was recorded (say 10:05). Moreover, the fact that how much of time slicing was needed was also discussed; should it be left broadly at a thematic level (i.e. maternal health, child health, family planning, curative care etc related) or minute time specifications for each of the activities be made (various sub-activities within child health-immunisation). Eventually it was decided through a reiterative process that broad categories with sub-categories would be defined. A time log would be made for sub-categories and not for activity specifications within. Anything additional could go in 'others', which are mentioned for each of the sub-categories.

Regarding the number of observers to be deployed for each worker's observation, it was pointed out that the presence of two observers may be a hindrance in the worker's functioning and also in actual and accurate observations. As defined within the broader study premises, the observation of worker to and from home was insisted upon since workers have been known to spend large periods of time in travelling. Since most of the workers

under observation were women some of them were not comfortable with the home-to-home follow up because of cultural and personal reasons.. In such cases it was decided to exempt them and instead record the information telephonically communicated by the worker to the respective observer. The recording would be initiated exactly when the worker telephones the observer and stopped when she informed the observer that she had reached. A crucial aspect which emerged about the composition of the field data collection team was '*diversity*'. It was believed that keeping diverse field investigators for data collection and switching them over with the cadre of workers over a span of time across districts would greatly improve the data quality.

Subsequent to this a brief meeting was scheduled with the study's field implementing agency representative in Hyderabad in order to better understand how they would achieve the study and the use of technology in their other social research work profiles. They shared the use of a pen-paper based recording system using an inductive approach in which managing the data was a major challenge. Data was eventually analysed by identifying broad categories and arranging the data accordingly. The inductive approach used by the Gujarat study team gave sufficient space to incorporate even those activities which were not part of a nurse's job description.

Thus, both the meetings held in Bangalore and Ahmedabad to a great extent helped in refining the existing understanding coupled with the field exposure and conceptual base generated through secondary data.

3.3 Finalisation of protocol

During this phase of tool development, the key technical aspects continued to be discussed with the respective experts in identifying domains. A second TAM-TAC discussion meeting held in March 2014 built a consensus upon key decisions based on which the existing protocol was revised. The revised protocol comprised of a clear articulation of revised sample size, sampling framework, field strategies, and tools and instruments to be used for the study's execution.

3.3.1 TAM technical aspects discussion-1

During December 2014, a meeting was organised with experts available locally in Hyderabad in order to discuss the research methodology and field strategy.

Dr. Samiksha Singh, thematic project expert and Ms. Srilatha Sivalenka, were present during the discussion.

With reference to the execution of the field work, it was suggested that the field work be carried out simultaneously across all the three districts switching from one PHC to another PHC within a month and finishing the entire study in three months.

The exact number of days for which the TAM observations of workers have to be undertaken was to be decided based on two potential biases. One if the worker was observed for too short a time, then due to the Hawthorne effect the worker may put forth his/her best and the true working style would not be captured and consequently the time utilisation for each of the activities. Studies[i] (Fernald D et.al. 2012; McCambridge, J., Witton, J., & Elbourne, D. R. 2014), report that the Hawthorne effect wanes by the end of the second day or latest by the third day. Thus, the subject needs to be observed for at least six to seven days to account for this. The second bias would again be if the observation was for a short period especially if the spectrum of work was spread over a span of days; in that case the observer may miss crucial insights and activities. As the work schedule of the workers was made on a weekly basis and a similar set of activities were repeated the week after as well; a minimum of six to seven days were needed to observe and to capture atleast one complete cycle of field level functioning. However, this may be too short a span to capture the programmatic activities which the workers may do fortnightly or once in a month like

NHD, immunisation campaigns as part of the National Polio Programme or surveys etc. A longer duration i.e. of fourteen days would capture some of this variation.

As discussed in an earlier meeting the decision was between

(a) Observations for a span of 14 continuous days (Mon-Sun-Sat) which would enable the factoring in of variations in worker activities across two weeks and other external factors and also capture any activity which may occur on a Sunday like emergency cases or;

(b) Observations for a span of six days (Mon-Sat) for one week only.

Experts strongly suggested six days of observation because it was never certain when the other less frequent programme activities would be conducted and as workers were to be observed across different PHCs consecutively within one district, the variations would still be taken into account. Considering the logistic feasibility, six days of observation seemed to be a better option. This was in fact also demonstrated through various rounds of field visits in the subsequent months and the range of interactions made at the field level both with officials (MOs, SPHOs, Additional DMHOs) and field level functionaries (ANMs, AAWs, MPHW-M).

During this meeting, it was also expressed that FLHWs need to be clearly defined. Thus FLHWs were defined as a staff employee of the health department who hadwell laid down job responsibilities and working hours. Thus, by definition, FLHWs comprised of ANMs and male workers only. Experts in this meeting_suggested that ASHAs be excluded from direct observations as they were volunteers / activists but not employees, secondly their work was not confined to fixed hours or formal interactions. They mostly work through and during personal meetings with their fellow villagers at home or at private gatherings. Observing them would be a breach of their private space and lives. However, the final decision was left for the final consensus building meeting scheduled over the coming months of 2015.

3.3.2 TAM technical aspects discussion-2

In early February 2015, a brief discussion meeting was organised with TAC member Dr. Deshmukh who is a medical doctor and an expert in qualitative research with a solid community health background. A meeting was held with a rationale to refine the observation tool draft comprising of broad, sub categories and activities lists, enhancing methodological, conceptual clarity, sampling strategy and other relevant aspects of field work. It resulted in a final decision to undertake TAM observations for core six continuous days of the week and if any day of the week was missed, due to a holiday or other reasons, then the same day of the week shall be covered in the following week. It was also realised that gender would not make much of a difference while observing workers so one should go with the feasibility of appropriate individuals available for recruitment.

Regarding the tools for in-depth interviews, he suggested that open ended interview guides be developed giving sufficient scope for probing by interviewers. It was clearly reiterated that a dedicated set of qualitative interviewers were a must for conducting interviews. This would also help in minimising the possibility of data contamination because the observer cadre was clearly demarcated from the interviewing cadre.

A sample framework was also refined where in a distinction was made within the ANM cadre leading to a sampling of 50 per cent1stANMs and 50 per cent of 2ndANMs. With reference to field work strategy he suggested that field work should be undertaken one district at a time over a span of three months instead of parallel field work. This would also help to record rare events over a span of time

such as polio immunisation day or election duties across the state. This actually did happen and NHD and special drives like the launch of Mission Indradhanush were also part of the TAM observations especially in Khammam District (end of September 2015).

3.3.3 TAM technical aspects discussion-3 with TAC members

Having refined the study protocol, research methodology and study tools, a discussion meeting was organised with experts in March 2015. The meeting laid a clear path for the execution of the main study. Firstly, objectives were laid out clearly and the methods were revisited so as to achieve these objectives. The meeting involved an intense discussion wherein most of the aspects related with technical conceptualisations and field strategies, as evolved over a span of past few months, were accepted by TAC experts.

Two key points were discussed. One was in reference to the inclusion of ASHAs which was still debatable. It was clearly recognised that though ASHA workers were the most grassroots and crucial anchor points of service delivery to rural masses doing a TAM study with them was not feasible. The experts decided that ASHAs would be included in the study but FGDs be conducted with them. ASHAs were to be selected based on incentives (lowest to highest) with a total number of 9-10 per FGDs with a total of six FGDs across three districts (2 per district). Likewise AWHs were totally dropped from the study because their role was not so versatile. The main reason for including ICDS Scheme workers in the study was to understand the convergence with the health department. By including AWWs this purpose was totally fulfilled.

The second discussion was about an observation recording tool. The TAC experts were unanimous in their consensus to use a deductive approach for the final study and that maintaining a daily diary records/field notes of activities, while observing workers, was a must. This would not only serve as a backup in the case of technology failure, but also help to take into account activities which were not covered by the observation tool. But it is important to note here that the deductive approach used in TAM was nested in the background of inductive approach to research which was well tested out in the field over time. TAC decided that a thorough inductive analysis into the working of FLHWs, AWWs would be undertaken by observing a few FLHWs for a period of two to four days over different days of a week. Using these observations, an observation tool with an extensive list of activities, sub-categories and broad categories would be revised. These would then be compared with the defined job responsibilities of the respective FLHWs and AWWs and more activities, sub-categories and codes would be added if not already included. Interviews should also be done with a few FLHWs, AWWs, supervisors and MOs in order to crosscheck if any aspect had been missed.

Table 1: Summary of key decisions taken

Issue	Decision taken
Approach to observations under TAM	Deductive approach to main study. Inductive approach to development of observation tool.
FLHWs for direct observation	MPHW-M and ANM; ASHA not included in direct observation
1st and 2nd ANM	Both 1st ANM and 2nd ANM to be sampled in 1:1 ratio
ICDS staff	AWWs included while AWHs were dropped
Interviews of FLHWs	In-depth interviews to be conducted with the same worker on the last day of the observation period
FGDs	FGDs to be conducted with ASHAs. They were to be sampled based on the range of incentives.
Interviews of key informants	In-depth interviews to be conducted with health supervisors, Medical Officers, ICDS supervisors, CDPOs and at the district level- with DMHO and Project Director, ICDS. SPHOs from health department were covered at the sub-district level.
Duration of observation	Six days direct continuous observation from Monday through Saturday. If any day missed then same day of the week was to be covered in the coming week.
No. of observers per FLHW	One observer per FLHW. The same observer was to follow the same cadre across PHCs and districts.
Personnel for qualitative component	Dedicated skilled personnel for in-depth interviews and FGDs which are separate from observers.
Observation data recording mode	Use of Android based software in tablets
Quality assurance	Using GPS for monitoring Two levels of supervisors and regular monitoring visit by TAM/CESS study team Quality checks for data Quality checks for analysis
Pilot	Pilot one to test tools Pilot two to test tools and software using tablets
Training	Extensive practical training with quality assessment of training sessions

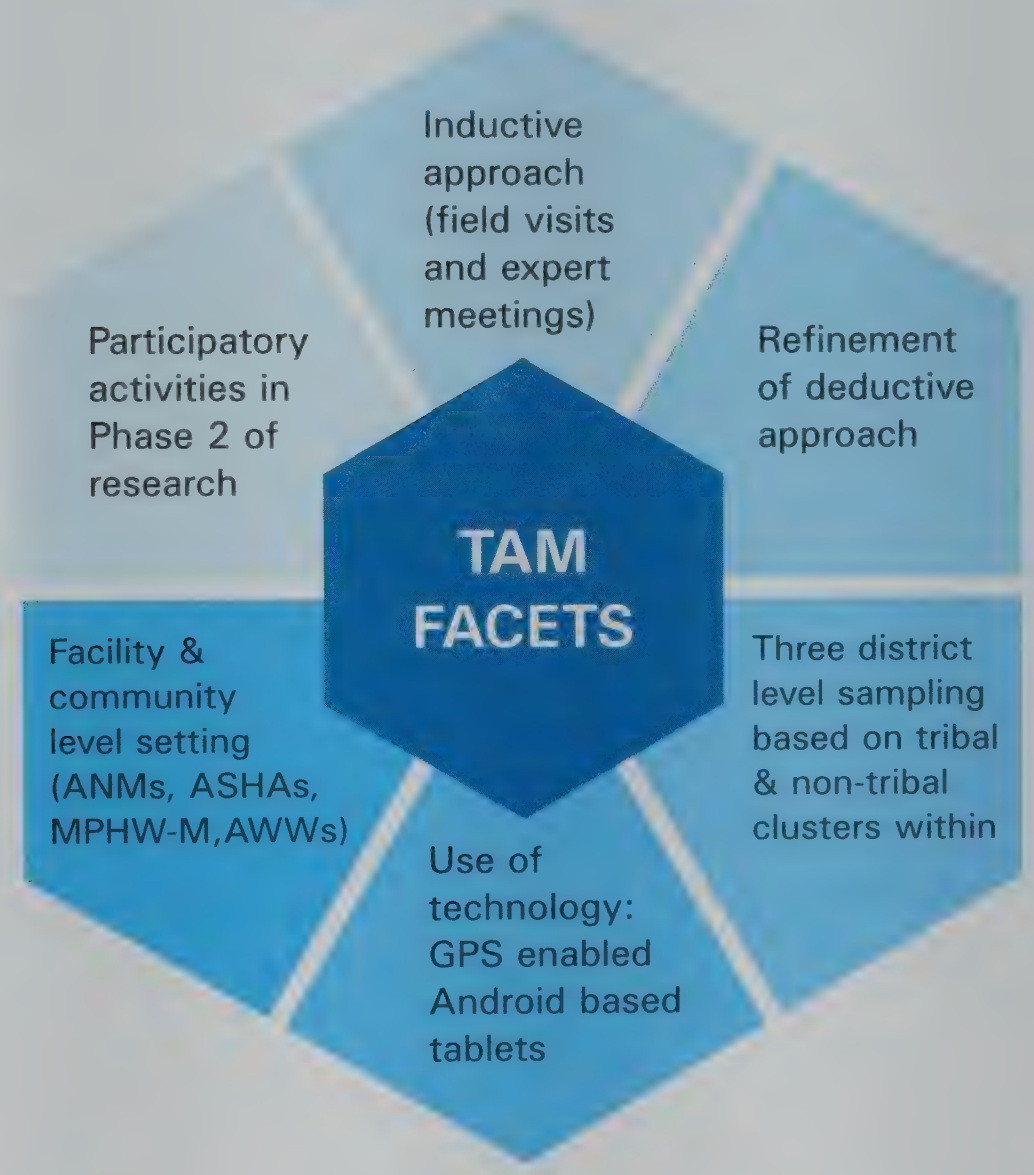
Some other crucial aspects that emerged out of the meeting are mentioned below.

- To develop an algorithm for FLHWs and AWWs from location to services and services to location after three days of exploratory observations - inductive
- The final categorisation of activities shall not be beyond three levels of categorisation i.e. category – sub-category–activities. If there were any additional observations then those would be taken down as field notes or typed in the comments section provided in the software
- Activities performed by FLHWs and AWWs could be broadly categorised as productive and non-productive activities. Time spent for each person would be calculated and analysed later. A contextualised check list would be re-generated after the field visit. It had to be a reiterative process
- Building a good rapport providing essential explanation about the study along with informed consent which was non-negotiable to meet the study's objectives
- Interviewing SPHOs at the cluster level was essential especially in the context of AP and TS

The Mandal and district officials questionnaire should not consist of more than three to four questions and the power dynamics must be taken into account. This would greatly impact the flow and quality of interviews.

Discussion meetings greatly helped in charting out a clear pathway for the study processes and strategies ahead. Based on the discussion and suggestions given the main study protocol was finalised along with changes in the research objectives and research methodology. Tools were to be re-fashioned in a deductive manner and the main facets of the TAM study were properly defined (Figure 5).

Figure 5: TAM Study Facets



3.4 Refining of tools

3.4.1 Learning field visit -Inductive approach

Having visited the field repeatedly over the months, in April 2015 a third round of a four day long pre-learning visit was made to Sangareddy Mandal of Medak District. The rationale for the visit was to do another round of exploratory observations with an inductive approach and to address conceptual gaps that emerged from the discussion meeting in order to contextualise the study as per the field situations.

Workers from the health department, i.e. one 1st ANM, one 2nd ANM, one MPHW-M and one person from the ICDS Scheme i.e. AWW were observed. Once again, narrative of each of the workers days was written for four consecutive days which helped to cover a major amount of workers' time spent on the job during the week and covered a spectrum of activities. On the fourth day, a brief interview was undertaken with each one of them in order to refine the questions and also contextualise the same with the worker's perspective.

Observations were done directly using the pen and paper method as per actuals. The observer's positioning in the setting was quite crucial so that it did not interfere with the routine functioning of the FLHWs and AWWs. Post the field visit, the data collected was well documented and minutely filtered for newer categories and sub-categories to be added in the observation tool.

The interview schedule that had been developed based on secondary research was further contextualised by actual field observations. The ANMs and MPHW-M themselves went through the tool and refined it further. An interaction was made with a group of ASHAs who had come for an ASHA meeting to the PHC. The interaction was based upon a guideline developed for the ASHA FGDs with sufficient scope for refinement. Certain questions from the interview schedule, FGD guide and categories- sub categories were either removed or clubbed together as a larger theme or question.

The major outputs from this visit were the tools (observation, interview schedule and FGD guide) well-contextualised in the study universe. Inductive recording of the workers' day clearly helped in holistically covering their time and activities, but in the end it yielded an exhaustive list/data which required a careful categorisation and sub-categorisation. It is very important to bear in mind that this learning visit was not a pilot. It was one of the extremely crucial stages of tool development and finalisation which laid down a solid background for the pilots undertaken subsequently.

The learning field visit also gave an opportunity to test the feasibility of some of the core field work strategies which had been finalised during the discussion meeting held in March 2015. The study team did encounter the Hawthorne effect within the first two days but over time, because of the rapport built, the workers felt comfortable returning back to their routine functions. It was also confirmed that gender did not make much of a difference in the observation of workers as the team comprised of a mix of genders and workers were equally comfortable with all of them. Ethical aspects related to oral consent taking and confidentiality were also taken care of especially because of the emphasis on the same for the main study. Special attention was paid to observer positioning along with the worker so that his/her routine functions could still be carried out. The sampling strategy suggested with respect to sampling of ASHAs for the FGD was also confirmed during this time. The ASHA incentives register available with the PHN was checked in order to get a list of ASHAs with incentives ranging from low to high.

Following the learning visit, the final round of revisions in the study protocol and research methodology was done. Thus, a great range of in-depth interactions with various stakeholders, visits in multiple rounds actually enabled to contextualise the study's technical documents (including tools) as best as possible in order to pursue the same for the pilot and main study.

3.4.2 Pilot study

A series of two pilot studies (two days each) along with the external agency were accomplished in June 2015. The pilot was done in a non-sample district i.e. Medak in order to avoid data contamination and bias of any kind. This was crucial with respect to the actual field testing of the tools, study processes and GPS enabled technology usage with an Android based software programme for TAM observations. The pilot was undertaken across four SCs of Kandi PHC, Sangareddy Mandal, Medak District. The cadre of workers was exactly the same as the original sampling plan. The 1st ANMs and 2nd ANMs were observed from each of the SCs covering two AWCs as well from the SC area. There was only one MPHW-M worker in the entire PHC who was also observed. On the last day, the FGD with ASHAs was also conducted in order to

devise any further changes. The pilot was undertaken by a team of six people; three from TAM/CESS and three from the field work implementing agency.

The pilot testing had the following key objectives:

- To field test the tools for validity of responses and observation process designed (physical processes and through an Android based app)
- To accurately understand field contexts within which workers operate (work schedule of workers and respective observation categories)
- To test cultural appropriateness of tools translated in the local language Telugu
- To determine other factors which may/not impact study execution (any of the local festivals or gazetted holidays, potential challenges etc)

The study tools were thoroughly revised both in terms of content and local translations as a result of the first pilot study. In the second pilot, Android smartphones were used as the device. Changes were made in the activity codes of the observation tool. All of it was documented as a study inception report which gave a foundation for the steps ahead.

Some of the major findings and improvisations from the pilot are mentioned below.

- Changes with respect to operationalisation and handling of Android based software were devised
- 'Other' was added as an option in each of the broad categories and sub categories because there were many activities carried out by the FLHWs and AWWs which were not there in their job chart
- GPS tracking was programmed in the software in such a way that it tracked the location for every fifth activity. This was done based on the realisation that in certain situations by virtue of the rapport built the observer may handover the device to the worker to fill in entries and disappear. However, with the GPS location being automatically tracked for every fifth activity this possibility was minimised
- Certain changes were also made in the activity codes of the observation tool like a subcategory of 'Travel within field' was added to all the respondent categories. A new category of 'House Visits' was incorporated as a result of the second pilot with activities listed. Camp day and adolescent health category were added for all the cadres. The counselling component was clubbed with service delivery as a result of observations in the second pilot

As anticipated, there were cases when the AWW performed multiple activities concurrently including maintaining the registers, observing the food distribution, taking care of children, talking to pregnant women and counselling. The agreed upon protocol for recording such observations was to code it as the primary activity being undertaken, with the secondary activities being recorded in the notes. This was done in actual in the field and was found to work well.

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PHASE TWO

IMPLEMENTATION AND EXECUTION OF THE STUDY

4. PHASE TWO IMPLEMENTATION AND EXECUTION OF THE STUDY

The work done in the formative phase of the TAM study greatly contributed to the actual implementation and execution phase of the study. The process and strategies were rigorously refined along with a greater conceptual and technical clarity about field systems and situations. In the month of May 2015, an external agency based in Ahmedabad, Gujarat-Dexter was empanelled for the field execution of the study and preliminary data analysis. An in-depth two-day long meeting was organised in June 2015 with Dexter in order to build consensus on the tools and to chart out the plan ahead.

1. STUDY EXECUTION: KEY LEVELS

In the months of May – June 2015, official permissions were obtained from the Commissioner of Health and Family Welfare and Director, WDCW Department from both the states i.e. AP and TS. Post sanctioning from the state level, signed letters with the brief study note were shared with DMHOs and Project Directors (PDs) of the sample and pilot districts. Following this telephonic calls were made to concerned authorities in order to brief them about the study and plans in the respective districts. The DMHO's office sent information and a request for cooperation to the sample health centres and concerned officers. Figure 6 below depicts the different levels and key people involved in study execution from State to Mandal level.

Figure 6: Key levels and people involved in study execution from State to Mandal level

2. FIELD TEAM BUILDING AND TRAINING

2.1 Field team selection, recruitment and training

Followed by the empanelment of the field work implementing agency in May 2015, a detailed two day meeting was undertaken on 1st and 2nd June 2015, in order to improvise the tools drafted, plan for the pilot and study's execution in the coming days. The month of June 2015 was devoted to the execution of two pilot studies, software designing and improvisation. Based on actual on site field observations and learnings, the tools and software were accordingly modified by the agency with close discussions with the TAM study manager and experts. Parallel preparations were also made for the main study's initiation. This was marked by the identification of prospective candidates based on criteria defined for '*Field Supervisor*' and '*Field Observer*' cadres. A detailed list of candidates with qualifications and experience was shared by Dexter with the TAM/CESS team. Post-graduation in social sciences was the minimum condition laid down for field supervisors and Bachelors was the requirement for field observers. Experience in social research was an added advantage.

During early July 2015, field team selection and recruitment was done in coordination with the agency. From the list shared, candidates for the field supervisors as well as field observer's roles were shortlisted based on their backgrounds, experience, and competence. Shortlisted candidates were invited for telephonic and personal interviews conducted by a panel constituted at TAM/CESS. During the personal interviews, a total of 11 candidates were selected out of 21 candidates who had appeared for the TAM study. Out of the 11candidates, eight were found to be fit for the field observer's cadre whereas three were selected for the supervisor's cadre. A total of 18 candidates were interviewed in their preferred language telephonically. Seven candidates were selected for the field observer cadre and one for the field supervisor cadre. One candidate was found fit for both observations and supervision. Thus, a total of 20 candidates were selected for week long training for the TAM study. It is important to note here that this list of 19 candidates was still not the final one. A decision was made to drop a few based on their performance and observations made during the training.

The figure 7 below illustrates the process of recruitment and training as planned and adopted.

Figure 7: Recruitment and Training Process

Training was provided through three days of intense classroom training and two days of field testing in Kandi PHC, Medak District where the pilot study had also been conducted. It is crucial to note here that field supervisors and field observers were trained together on all days of the training except for the technical session on 'conducting interviews and ethical aspects' on the third day which was solely meant for the field supervisors. During the classroom training theoretical sessions covered the following aspects:

- Who are FLHWs, AWWs and ASHAs
- What are their job functions
- District health service system structure
- Orientation about TAM research study methods: interviews, observations and FGDs
- Detailed session on each of the tools including mock sessions for practice
- Ethical aspects to be considered in the study

The technical session about FLHWs, AWWs, ASHAs and the district health service system was covered by the MO of Kandi PHC, Medak, Dr. Shashank Deshpande. All observation tools were first studied in detail and mocks were done using the paper format. Mock sessions were conducted in order to familiarise the participants with the observation categories and recognise the same in the field. Thereafter, the mocks were done using the tablets which had an Android based observation software programme. Till the second day, the sessions were common both for field supervisors and field observers. On the third day, separate detailed sessions were conducted with field supervisors, focussing on how to conduct qualitative interviews. There was a session on ethical aspects associated with the study and the procedure for taking consent. Field training on the fourth and fifth day was an actual rehearsal of the main study where in the field team was divided into four groups across four SCs with respect to the cadre of FLHWs and two AWCs under Kandi PHC area (closest to two of the four SCs selected). Each team had one field supervisor along with three observers and one lead each from the agency or TAM/CESS. This was done in order to not only divide the groups uniformly but also to trouble shoot any of the aspects which emerged in the field.

On the fifth day, pre and post tests were administered along with the feedback form in order to assess the participants' learnings and overall impressions about the five day long training period. As a result of the training programme the following key learnings were gained for the main study (Source: Study inception report submitted by Dexter, October 2015).

- Specific possible scenarios, in which the observer could potentially get confused, were identified. Based on discussions with the research and field teams, consensus was built on standard responses and communicated to the observers
- It was realised that the observations would be more efficiently taken if each observer was assigned to one cadre of FLHW
- It was observed that the trainees were very comfortable with the size and specifications of the tablet as compared with the smartphones used during the pilot studies
- Provision for taking field notes in the paper format was also incorporated. This was necessary in case of the tablet not functioning and keeping a back-up along with additional observations

3. FIELD PROCESSES FROM STUDY DISTRICTS

By end of July 2015, the actual field study was initiated with a defined time and activity plan for the agency. The first data collection was conducted in Srikakulam followed by Chittoor and Khammam. This selection was mainly done keeping the climatic conditions in mind i.e., summer and monsoon. In each district, the initial three to four days were spent insetting up the base and 14 days were used for core observations. In each district the study was initiated in the farthest sampled cluster (tribal or non-tribal) followed by the second sampled cluster closer to the town. This was done mainly for operational ease. Within a cluster, a total of six days of work were spent i.e. Monday to Saturday. On Sunday, the base was consecutively shifted to the next cluster for starting fieldwork from Monday to Saturday. A gap of one to one and a half weeks each was taken after accomplishing one district's fieldwork to other in order to complete the data organisation process. Periodic review meetings were held after each district's data collection in order to take stock of the processes and see if any improvements were required in further stages. Details of the district field activities are described below.

During each of the district's fieldwork, extensive supervisory visits were also made by the supervisor's field team of two, which was present full time in the district, from TAM/CESS in order to fulfil the following set of objectives.

- Monitoring data collection and performance of the agency
- Supportive supervision to the field team across four SCs of sample PHCs
- Revisiting, refining and improvising processes/strategies wherever required based on the field circumstances

A team of two undertook the field level official's interviews of the SPHOs and CDPOs. TAM study manager from CESS and external thematic expert from IIPH-Hyderabad came for field monitoring and conducting interviews of the DMHOs and PDs from ICDS Scheme.

3.1 District data collection schedule

In each of the districts, as per the sampling plan, two clusters were chosen for conducting the field study. One of the clusters was a remote tribal cluster where as the other cluster comprised of a mixed population and was at a short distance from the main town. A meticulously planned field strategy was followed in order to accomplish the field work across the two clusters and each of the districts within a given time frame (Table 2).

Table 2: District data collection schedule

District	Field base set-up preparations	Cluster-1	Cluster-2
Srikakulam **Chittoor** **Khammam**	• Meeting with DMHO and PD, ICDS • PHC level contact building • Facilitative meeting with PHC MOs and worker-observer pairing up • Field stock taking with Dexter field team	Non tribal cluster PHC (Borivanka PHC, Kaviti) **3-8 Aug 2015** Non tribal cluster PHC (Daskuppam PHC, Satyavedu cluster) **31 Aug - 5 Sep, 2015** Tribal cluster PHC (Singareni PHC, Yellandu cluster) **7-12 Sep 2015**	Tribal cluster PHC (Kusimi PHC, Seetampeta cluster) **10-15 Aug 2015** Non tribal cluster PHC (TV Palli PHC, P.Kothakota cluster) **7-12 Sep 2015** Non tribal clusterPHC (Mudigonda PHC, Nellakondapalli cluster) **21-26 Sep 2015**

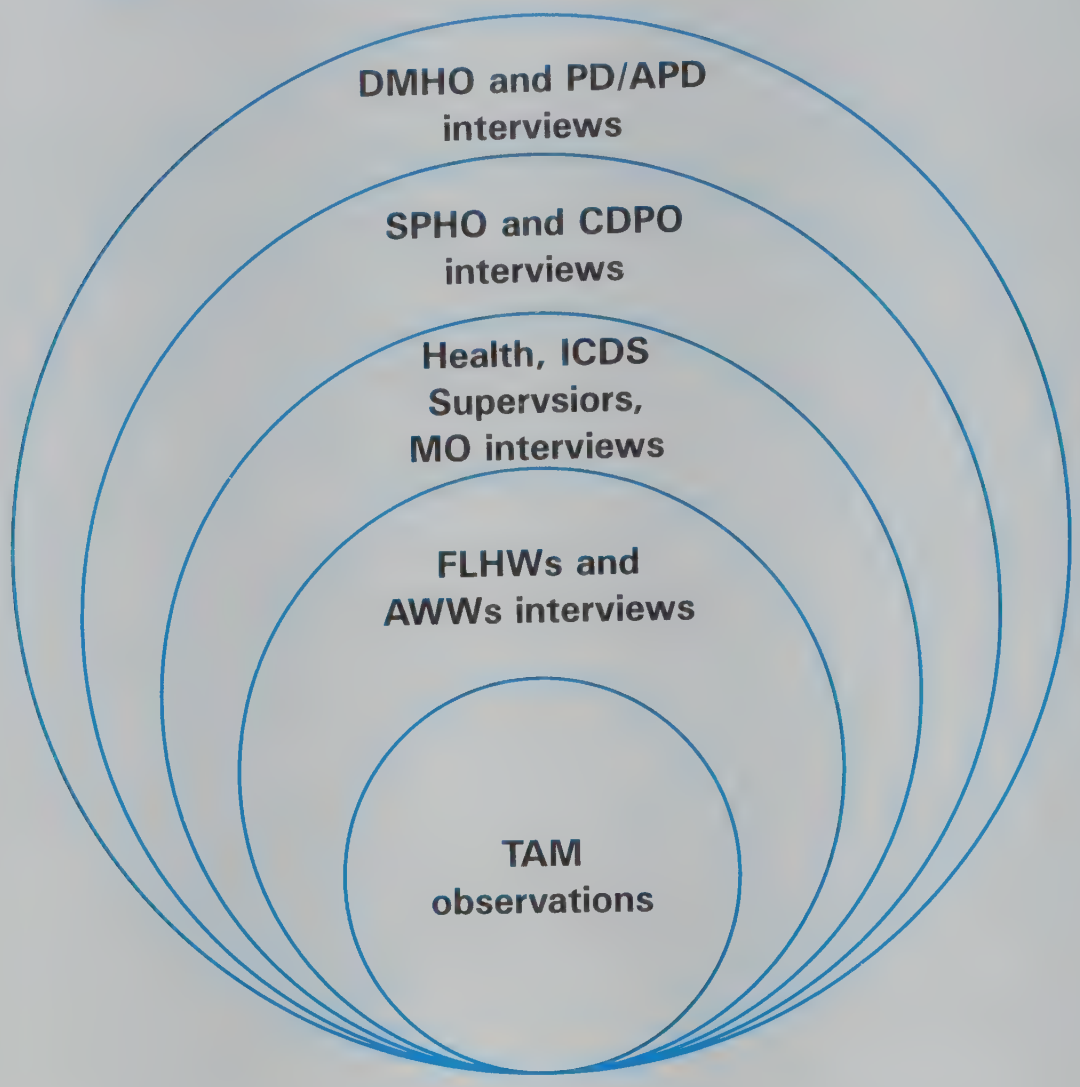
3.2 Processes and improvisations in the field strategies

Detailed technical aspects related with the methods are mentioned in the project technical, however in this section we describe the improvisations adopted in the field.

3.2.1 Sampling

As per the study sampling framework, a total of six to eight ANMs (1st ANM and 2nd ANM), two male workers and two AWWs were to be sampled in each of PHCs. Thus, the aim was to cover a total of 20-24 workers across each district. For the FGDs, 9-11 ASHAs were to be sampled at each of the PHC levels based on the range of incentives (lowest to highest). This register was available at the respective PHCs. From each of the districts, the DMHO and PD were to be interviewed at the district level, two SPHOs and two CDPOs at the study cluster level and two MOs, two health supervisors and two ICDS supervisors at the Mandal level. This gave a total sample size of ten officials for each of the districts. The sampling of officials at three levels helped in contextualising observations and learnings from the micro to the macro level. Refer to Figure 8 below in order to understand the same.

Figure 8: Sampling of Officials, FLHWs and AWWs



FLHWs sampling

FLHWs were sampled from the SC level as defined in the study sampling frame. However, if the sample SC failed to meet the desired criteria of workers (1st ANM, 2nd ANM and/or MPHW-M) then the next closest SC was sampled.

Officials sampling

With reference to sampling of district officials, it was decided that in the case of the unavailability of the DMHO or Project Director (ICDS), the next immediate officer in-charge would be interviewed. In Srikakulam and Chittoor Districts, since the PD was unavailable the Assistant Project Director (APD) was interviewed. In all the three districts, respective DMHOs could be interviewed however only one PD could be interviewed (from Khammam).

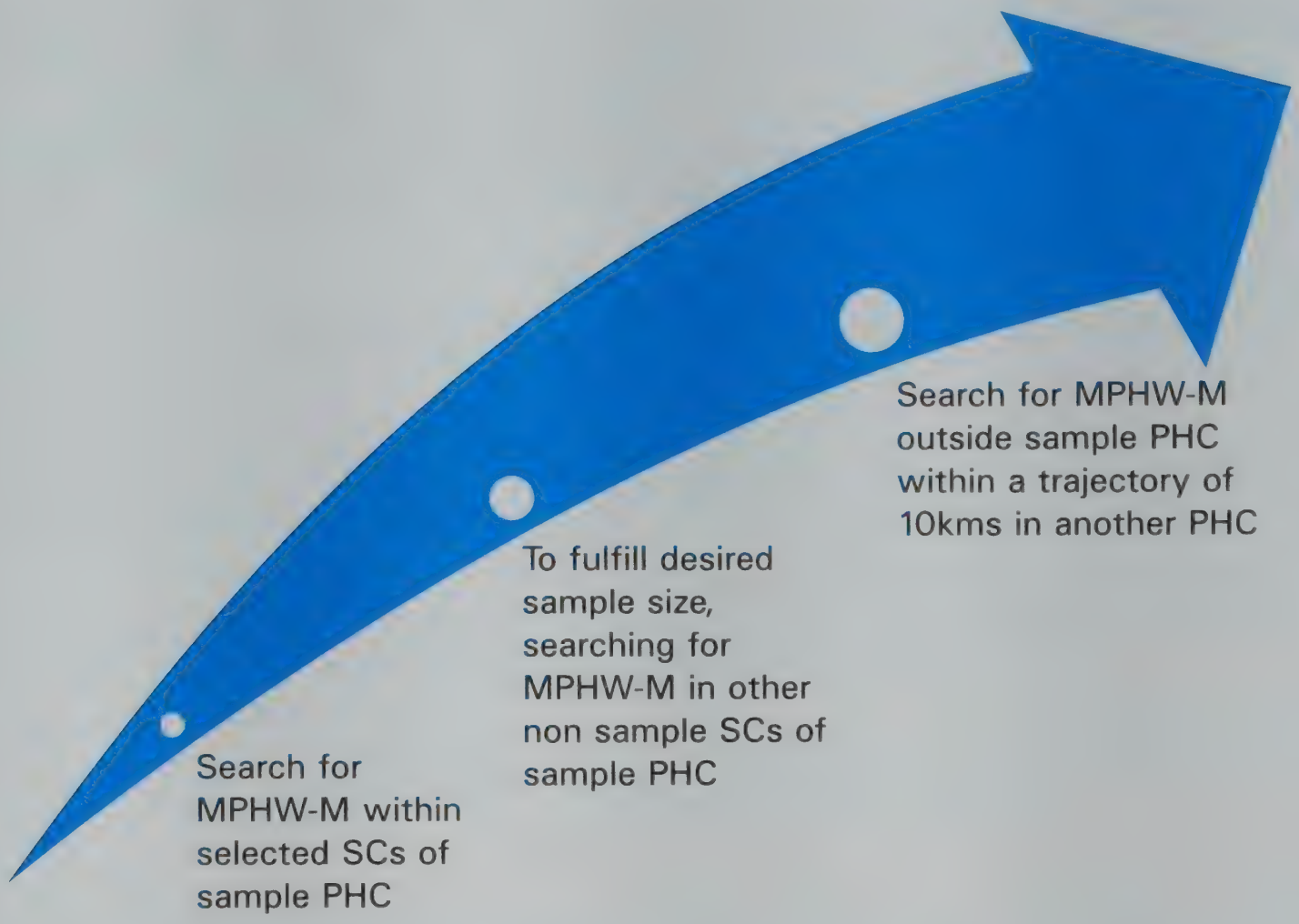
Among the supervisor's cadre, the respective health and ICDS supervisors of the sample SC and AWC were interviewed. It was ensured that the supervisor interviewed was the supervisor for the FLHW or AWW under TAM observation.

MPHW-M sampling

As per the protocol, a total of four MPHWs-M per district were to be sampled with two MPHWs-M across each of the sample PHCs. However across all three districts, the appointed MPHWs-M could not be found as per the plan. Because of a scarcity of MPHWs-M it was decided to fulfil their sampling at three levels (Figure 9).

In Srikakulam, a total of five MPHWs-M were interviewed, one from the sample SC of the non tribal cluster PHC of Srikakulam and four from the tribal cluster PHC. In Chittoor, only one MPHW-M could be found that too from a non sample SC of the non tribal cluster PHC (Daskuppam PHC, Satyavedu cluster). In Khammam, none of the MPHWs-M was found in and around the sample PHCs. Thus, in total, six MPHWs-M were interviewed as against the overall planned sample size of 12.

Figure 9: Improvisation in MPHWs-M sampling strategy



Anganwadi worker sampling

AWCs were chosen based on the distance from the PHC as per the suggestions from the ICDS supervisors and CDPOs. Two villages were randomly selected among the villages linked with the selected sub-centres. AWWs from these villages were included for the study. Both AWCs chosen in each of the clusters across districts represented one closest and one farthest AWC from the PHC. This was done in order to capture a variation in beneficiary populations. The example from Srikakulam District illustrates the same. In the non tribal cluster, based on a suggestion given by ICDS office, two AWCs were selected from the SC areas (PK Palem and Borivanka). PK Palem was selected as it was nearer to the sea coast giving a good mix of population comprising of the fisherman community. Borivanka AWC was chosen as it was closest to the PHC. Thus, a good mix of population was represented by both AWCs. In the tribal cluster, based on a suggestion given by the CDPO, two AWCs located in Sambham and Goidi were chosen and respective supervisors of both AWCs were interviewed. Sambham AWC gave a picture of a distant remote AWC in the hills while Goidi AWC was in the plains and relatively closer to Seetampeta town.

3.2.2 Workers selection for TAM observations and interviews

Table 3 below depicts the exact distribution of workers (1st ANM, 2nd ANM, MPHW-M and AWW) across sample SCs (and AWCs) of selected sample PHCs.

Table 3: Workers covered under the TAM study

Cluster Name	PHC and SC wise	1st ANM	2nd ANM	MPHW-M	AWW
Tribal cluster (Seetampeta)	**PHC 1: Kusimi**				
	SC1: China Kamba	1	0	1	
	SC2:Goidi	1	1	1	1
	SC3:Sambham	0	1	1	1
	SC4: Kusimi	1	1	1	
Non tribal cluster (Kaviti)	**PHC 2: Borivanka**				
	SC1: P. K. Palem	1	0	0	1
	SC2: Kusumpuram	1	1	0	
	SC3: B. G. Puttuga	1	1	0	
	SC4: Borivanka	1	1	1	1
Total		**7**	**6**	**5**	**4**
Chittoor					
Non tribal cluster (Satyavedu)	**PHC 1: Dasukuppam**				
	Ambakkam	1	1	0	
	Kannavaram	0	1	0	1
	K.N Peta	1	1	0	
	Dasukuppam	1	1	0	1
	Sathyavedu 1	Only for MPHW-M		1	
Non tribal cluster (P.Kothakota)	**PHC 2: TV Palli**				
	Patoor	1	1	0	1
	P.Kothakota	1	1	0	1
	Rangampeta	1	1	0	
	ThalupulaPalle	1	1	0	
Total		**7**	**8**	**1**	**4**

Khammam					
Tribal cluster (Yellandu)	**PHC 1: Singareni**				
	Madharam	0	1	0	
	Manikyaram	1	1	0	1
	Seetarampuram	1	1	0	
	Singareni	1	1	0	
Non tribal cluster (Nellakondapalli)	**PHC 2: Mudikonda**				
	Banapuram	1	1	0	1
	Kamalapuram	1	1	0	
	Venkatapuram	1	1	0	1
	Mudikonda	1	1	0	
Total		**7**	**8**	**0**	**4**
Grand total		**21**	**22**	**6**	**12**
Total workers		**61**			

3.2.3 Field base setup

In order to streamline field activities, an initial contact was built with concerned officials from the health department and ICDS Scheme. Information about the official letters along with details of the project sites was given in advance along with telephonic contacts. Letters were sent from the DMHO's office to the respective PHC MOs and SPHOs regarding the study. Personal meetings (wherever feasible) and telephonic calls were made to concerned SPHOs and CDPOs informing them about the study. Details about the study, and its protocols were duly explained and a convenient time slot was requested for conducting the interviews.

Subsequently, the team visited Cluster-1 PHC and met the MO and PHC staff. This was the norm followed in each of the study districts. The team explained the study's objectives to the MO and relevant PHC staff. Clear study protocols were duly explained with an emphasis on no media coverage. The FLHWs and AWWs were paired with field observers on a random basis and one supervisor was allotted for each SC. Simultaneously, contact building was also done with the respective CDPO in order to undertake the study across selected AWCs.

The field study's first week was also the time when the activities for cluster-2 PHC were streamlined. A total of three to four days were invested in each of the districts during the setting up of the field base. Table 4 encapsulates the same.

Table 4: Field base set up across districts

Day 1 and 2	Preliminary contact building with the SPHO, CDPO, MO of the sample PHCs and clusters, sharing about the study
Day 3	Visit to sample PHC/SCs and AWCs from Cluster 1: Preliminary meeting with MO, health workers, ICDS supervisors Planning meeting with Dexter's field head
Day 4	Locations and directions of the SCs and PHC shared with the agency. Pairing up of health workers and AWWs with observers and allotting of supervisors to each SC team

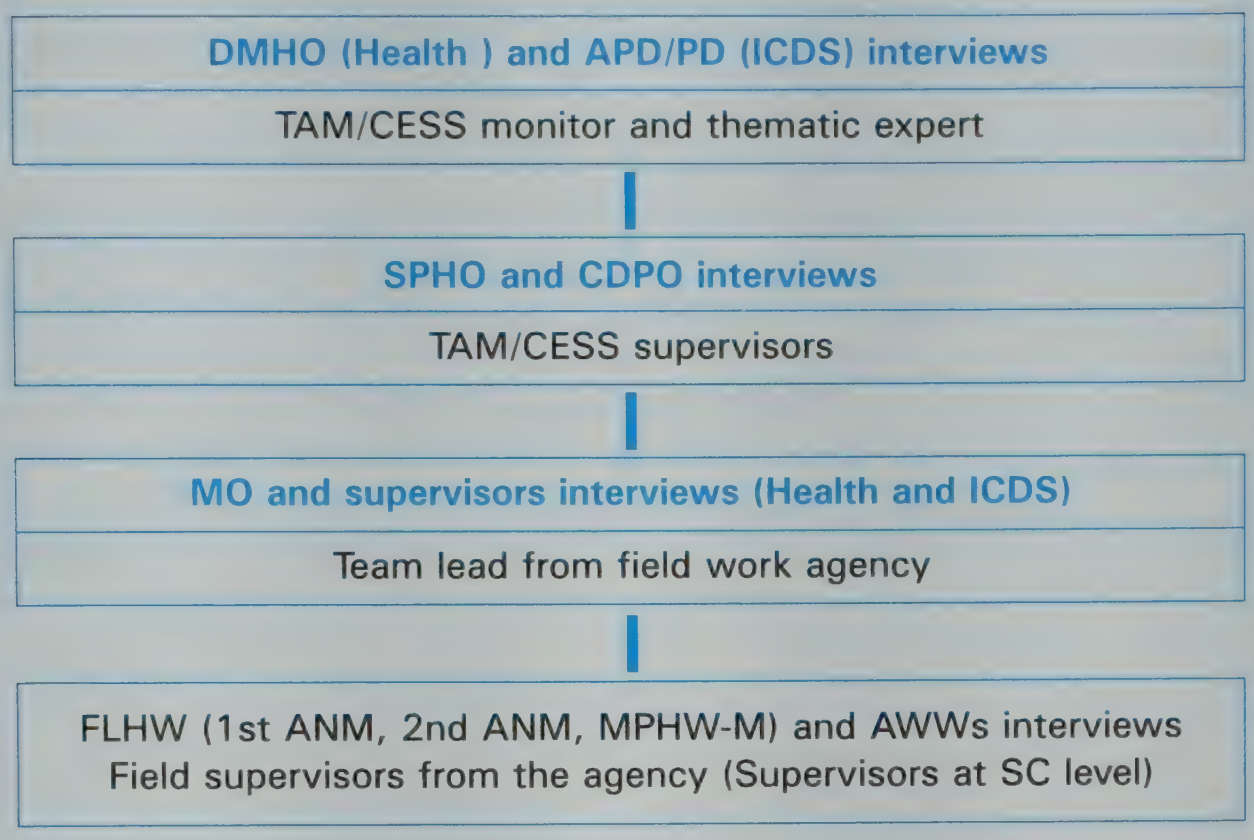
3.2.4 Field level execution

There was a purposefully planned hierarchical positioning of human resources in the field. Two of the TAM/CESS supervisors were positioned in the field for the complete duration of the study, who also conducted interviews with SPHOs and CDPOs. In the second week, TAM monitors joined the field team (study manger and external thematic expert) and conducted the district level official's interviews from the health department and the ICDS Scheme. The supervisors and monitors also undertook unannounced spot checks and provided supportive supervision to the data collection agency's field team. The TAM/CESS supervisors along with the field supervisors took field reviews with the observers on a daily basis in order to take a stock of the day's progress, learnings and challenges.

Pairing up workers with the field team was done on the basis of the respective skill set of each observer, as closely identified during the training period. Each observer was paired up with the respective 1st ANM, 2nd ANM, MPHW-M and AWW. The cadre of worker that a field observer studied was deliberately kept the same, while teams were reshuffled (including supervisors) in the second cluster. This was the norm followed across all three districts. The FLHW and AWW cadre was switched with the respective observer only in the casethat the observer was absent or covering up missed observations (simultaneously ongoing in another location).

Interviews with different cadres of people were very thoughtfully allocated to people based on depth and requirements of each kind of interview. Refer to Figure 10 below to understand the same.

Figure 10: Positioning of human resources in the field



3.2.5 Field follow up strategy

In the first district, Srikakulam, in the non tribal cluster PHC, during week 1, the FLHWs and AWWs were followed from home to centre or the field to take into account the total time taken for travel by them. But some of the workers expressed discomfort in being followed from home to home because of cultural reasons. Keeping this in consideration, the strategy was revised in the next cluster PHC (tribal cluster). It was suggested that the worker either gave a phone call or sent a SMS before leaving home and after reaching home. As soon as the communication was received from the worker, the corresponding observer made a log of her travel time under the designated sub-category. In the rest of the districts i.e. Chittoor and Khammam, this situation was addressed on a case to case basis. The information giving and written consent taking process was further tightened based on the first district's experience in order to build rapport with workers and for ease in the week-long observations.

3.2.6 Multi-tasking of activities

It was commonly observed in the field that FLHWs and AWWs did multi-task as envisaged and was one of the crucial areas of concern. As a result of the initial stages of the study's conceptualisation and pilot study, it was decided to take primary activity/category into account and record its time in the area of multi-tasking and mention the secondary activities in comments. Field notes were also maintained in order to note down any additional aspect which the observer was unable to immediately record in the comments section on the tablet.

3.2.7 Missed TAM observations

In case of missed observations (on account of leave, public holidays or local festivals or some other reason) of a particular worker on a particular day(s), as per the protocol, the observation was done the following week on the same day that the observation has been missed in the previous week.

Khammam District was an exception in this regard. While undertaking fieldwork in Khammam (21st September to 3rdOctober 2015) there was one public holiday (Eid). This was a holiday for both the health department and the ICDS Scheme workers. In order to avoid prolonging the fieldwork and other crucial operational reasons, it was decided to write the narrative of the worker's day and construct his/her typical day corroborating it with field notes. Eid was on Friday the 25th September 2015, so the worker's day was constructed for the previous Friday i.e. 18th September 2015 by detailed interview and discussions led by the field supervisors with the respective FLHWs and AWWs. In the second cluster, one ANM was absent for three days because of being unwell. The same strategy was followed to account for her missed days of observation.

3.2.8 Interviews

- **Timing for conducting interviews of FLHWs and AWWs:** All interviews were conducted either on Friday or Saturday of the observation week as soon as the worker finished his/her jobs for the day. In the protocol, it was laid out that interviews be undertaken in the following week. But based on the situation in the field, interviews were conducted immediately where workers had finished the day early. Care was taken not to disrupt the actual activities of the day and consequent time utilisation
- **Voice recording:** It was decided to audio-record all interviews after giving due information to the respondent about the purpose of the study and taking informed written consent. Wherever the respondents were uncomfortable this was not done. Voice recording was optional but not mandatory both for officials and FLHWs and AWWs. This flexibility gave a certain candidness to the interactions and richness to the data gathered. However, all FGDs were fully voiced recorded as ASHAs were in the group and they did not of have any particular reservations about being recorded

3.2.9 FGDs with ANMs

This was an improvisation made at a later stage, post the second TAM TAC meeting held in October 2015, as it was felt that apart from in-depth interviews of ANMs, the FGDs would provide different aspects of study relevant themes which ANMs would discuss in groups. FGDs also helped to get more information about aspects which did not emerge very clearly through analysis of interview transcripts. These aspects mainly related with time management, challenges, promotion factors, work planning, supervision, training, reporting etc. were explored. One FGD was conducted with a group of eight ANMs from Khammam District in December 2015. FGDs also helped to triangulate data. Technical details of the FGD are furnished in the analysis section of the study's technical report.

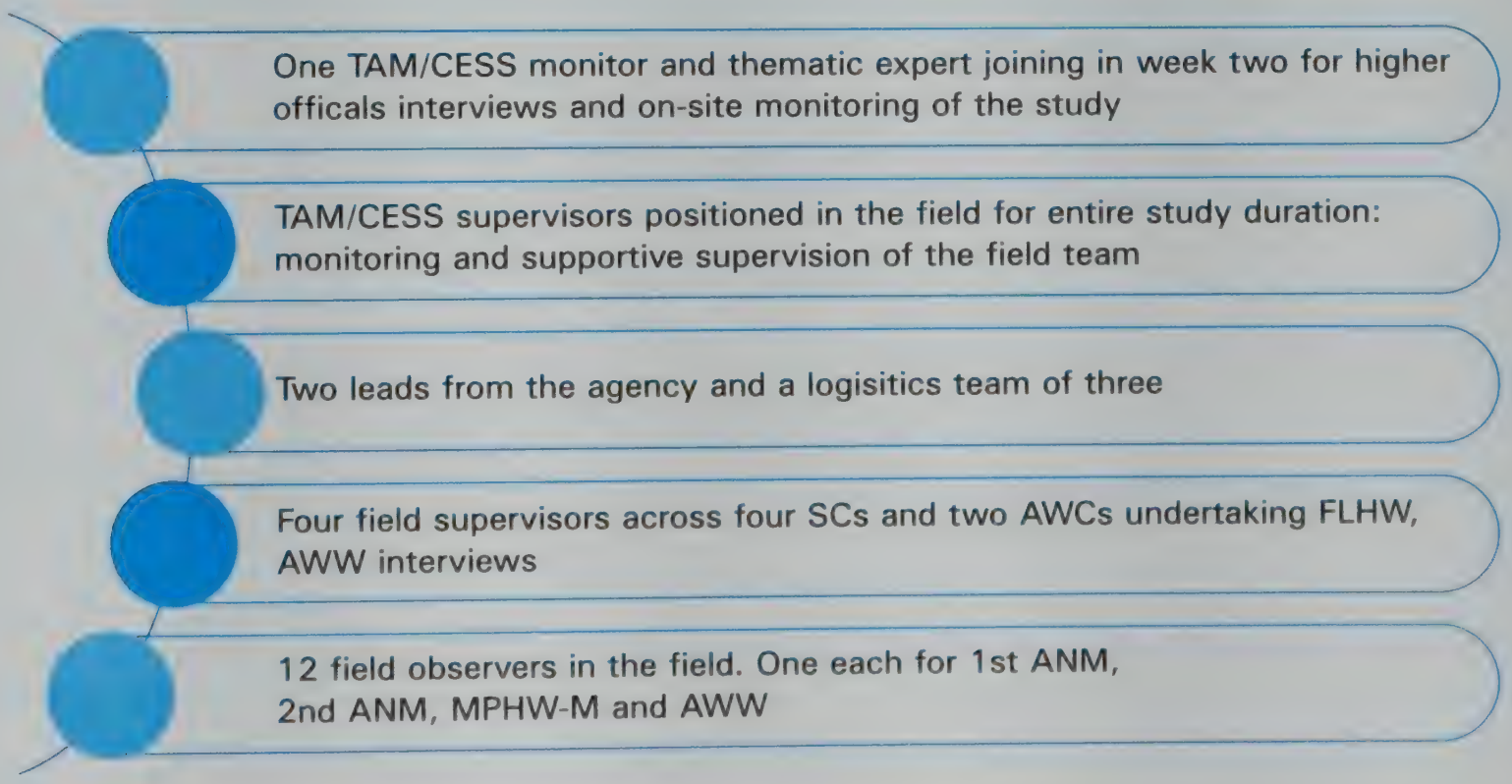
3.2.10 Informal Interviews of other important personnel

During the field visit to Chittoor, we considered interviewing the District Training Officers (who were trainers and supervisors for the FLHWs and ASHAs) to get more insights into the status of the working of FLHWs. One or two ANMs who had been awarded (for best work) were identified and their SCs visited. These ANMs and associated ASHAs were interacted with. The awarded ANMs approach to work helped in understanding the higher level of performance for this cadre and which may help in interpreting the TAM study's findings. These are presented as case studies.

5. DATA MONITORING AND SUPERVISION

There were a total of 12 observers recruited for the study in a 1:1 ratio. In cases where all the positions in the sampled PHC were filled 10-12 workers were observed. Observers were divided into four core teams with specific FLHW/AWWs allocated at the SC level with one field supervisor allotted for each SC. This enabled stringent monitoring and troubleshooting directly at the field level. There were two core leads from the agency supported by a logistics team in order to carry out field operations smoothly (Figure 11). At the beginning stages of the study there was an assumption that observers may either camouflage observation data collected over days or may escape from the study's setting. Over the course of time this apprehension faded away as stringent monitoring in the field at multiple levels and GPS monitoring left no scope for the same. Moreover, the PHC staff was also taken into confidence by the study team to report any irregularities during the course of the study.

Figure 11: Levels of field monitoring of the TAM study



During field level monitoring, it was ensured that, each person covers at least two SCs and one AWC on a daily basis. Monitoring visits were made on a random basis for spot checks and each day's schedule was altered in order to keep an element of randomness intact. The field work agency team's plan (observers and supervisory plan) was shared before hand with TAM/CESS which facilitated in scheduling the visits. The TAM observations summary was checked on the tablet for centre/worker visits. Unannounced visits were also made when interviews were being undertaken. Observation of supervisors was done while conducting interviews in order to ensure the quality. Moreover, mobile numbers of the respective FLHWs and AWWs, corresponding observers and supervisors were also gathered for random phone calls ensuring timely collection of authentic data. An advanced tour plan or the week's action plan of the FLHWs was also collected at the time of the preliminary meeting with MOs and workers in order to guide unannounced field site visits. Apart from spot checks the following aspects were also focused upon:

- Matching of observer's field notes with that of the supervisors. During training, the supervisors were also trained to maintain field notes in order to take into account their observations and impressions during each of the field days
- Tablet summary log (this did not impact the actual observation as the summary log was checked when a long activity like reporting was ongoing)
- Cross checking the observer's movements with the ANM/AWW.
- MO's opinion and observations about the field team

The maintenance of daily field notes by each of the field team members was insisted upon where in activity details were briefly mentioned, apart from additional or miscellaneous observations or notes. For example, the activities undertaken by a worker during home visits along with a log of the number of beneficiaries and houses visited. This also helped in supplementing the gap wherever lapses were found in the tablet based TAM observation recording. Field notes were also a means to validate observations made through the tablet. On a daily basis, notes were collected from the field team and a detailed discussion was undertaken based on the major highlights from the same.

On a daily basis, a field team review was also undertaken for which the entire field team used to assemble back at a mid-way point. During the field briefing the following aspects were discussed.

- Technical errors
- Field notes and tablet (TAM) summary check
- Review of SC-wise supervisory activities undertaken
- Challenges faced by the field team
- Specific aspects observed by the field team
- Clarification of queries and doubts

6. TAM AND TECHNOLOGY

From the time the study was conceptualised, the use of technology was at the heart of it. There were two aspects associated with technology usage:

- GPS enabled system
- Use of software application on a device to collect the TAM observation data

The use of GPS in the study was proposed for two reasons:

- To track the actual distance travelled by the workers because it has been known that the workers spend a lot time in travelling
- As a means of monitoring for the field team

After visits to Bangalore and Ahmedabad and interaction with technology data experts it was decided to design a software programme which when uploaded on a device could be used for TAM observations data collection. The nature of the device to be used was still in question; this was gradually answered through the pilots and field training programme. During the pilot study, a smart phone was used. It was found that some of the observers were not very comfortable using the programme on a smaller screen especially in situations where multi-tasking was involved which necessitates a quick shift of activities and categories. Thus, during the training programme, tablets were used with an Android based application uploaded. It was much easier and user friendly. The device tracked GPS locations even without SIM cards with an inbuilt Active GPS. During the pilot study, at each step issues related with GPS tracking were flagged and improvisations made accordingly.

Initially, observers did face challenges in handling tablets and the software programme installed for TAM observations especially during advents of multi-tasking or when there was a quick shift of activities. This was amicably addressed through a week long training programme where direct hands on practice on tablets was emphasised after the theoretical sessions. Dummy tests were also given to all participants so that they were well versed with the tablet and familiar with the programme used. Even during the main study doubts were immediately clarified as and when the field team expressed difficulties in handling the device and software programme.

As known, technology comes with its own set of pros and cons. The TAM study was no exception. During the course of the main study a couple of challenges were faced while using the tablets, software programme and GPS which are mentioned below.

- At times tablet got discharged despite power banks being used
- The tablet programme would hang sometimes
- The GPS location was not visible at times because it was programmed to note the location at every fifth activity

Under these circumstances the existing tablet was replaced with a spare tablet available with each supervisor and the data was eventually compiled.

7. STUDY CHALLENGES

Undoubtedly the evolution of the TAM study has been an interesting one where there were newer learning opportunities along with crucial challenges. The challenges faced were at different levels which were gradually addressed as the study progressed and through a core committee constituted for the study.

- **Conceptual and technical level:** During the initial stages of the study technical clarity on subject matter was the main challenge since the study was one of its kind, to be implemented with frontline health workers and at the community level. The TAM study has been a management concept and using it in health policy research was a major challenge
- **Field level:** The terrain of locations, permission taking and ensuring streamlining of activities, following female workers from home to the field/centre despite their reluctance and cultural reasons
- **Technology usage:** Device malfunctions at certain times, activity category selection issue in the area of multi-tasking
- **Ethical aspects:** Informed consent taking. It was an issue in the very first sample PHC from the non tribal cluster of Srikakulam wherein a few of the participants (ANMs) expressed unwillingness to be followed from home to home. Their objections were respected

ANNEXURES

Community Health Library and Information Centre
CHiE - SOCHARA
Kothanur Post
Bangalore - 560 077
(CLIC)

ANNEXURE 1

1. TAM Technical Advisory Committee (TAC) members, experts and others

S.NO.	NAME	INSTITUTION
	TAC Members	
1.	Dr. K. Sujatha Rao (IAS Retired)	Former Secretary (Health), GoI
2.	Dr. Pavitra Mohan	Founder, Basic Health Care Services, Udaipur
3.	Dr. Pradeep Deshmukh	Professor, Mahatma Gandhi Institute of Medical Sciences,Sevagram
4.	Dr. Amol Dongre	Professor, Sri ManakulaVinayagar Medical College, Pondicherry
5.	Dr. R.M Pandey	Professor, AIIMS
6.	Dr. Sanjay Chaturvedi	Professor, University College of Medical Sciences
7.	Mr. K.P Rajendran	Independent Consultant and Evaluation Specialist
	Other Members	
8.	Prof. Radhakrishna	Chairman CESS
9.	Prof. S. Galab	Director, CESS
10.	Dr. Samikash Singh	Professor, Indian Institute of Public Health, Hyderabad
11.	Ms. Srilatha Sivalenka	United States Centers for Disease Control and Prevention, Hyderabad
	UNICEF Hyderabad Field Office	
12.	Dr. Sanjeev Upadhyaya	Health Specialist, UNICEF, Hyderabad
13.	Mr. Deepak Dey	Social Policy Specialist, UNICEF, Hyderabad
	CESS, Hyderabad	
14.	Prof. S. Vijay Kumar	Head, Division for Child Studies, CESS
15.	Ms. Neha Dwivedi	Project Manager, Division for Child Studies, CESS
16.	Mr. Mohan	Research Associate, Division for Child Studies, CESS
17.	Mr. Yashwanth	Research Associate, Division for Child Studies, CESS
	Field work implementing agency (Dexter, Ahmedabad)	
18.	Mr. Rahul Sanghvi	Chief Executive Officer, Dexter, Ahmedabad
19.	Mr. Dheeraj Reddy	Dexter

ANNEXURE 2
PERMISSION LETTERS

LETTER FROM THE COMMISSIONER
DEPARTMENT OF MEDICAL AND FAMILY WELFARE-HEALTH, GOVERNMENT OF ANDHRA PRADESH

PROCEEDINGS OF THE COMMISSIONER OF HEALTHA AND FAMILY WELFARE
ANDHRA PRADESH: HYDERABAD
PRESENT: LAV AGARWAL; IAS

Proc Rc. NO:0177/ADDL DIR (MCH)/CESS - STUDY/2015 **Dated:21.05.2015**

Sub: CH&FW, AP, Hyderabad – Proposal a study on Time and Mission Study, Management of workload and work pattern among Public Health Functionaries by Centre for Economic and Social Studies, Nizamiah Observatory Campus; Begumpet; Hyderabad – Permission accorded to the District Medical & Health Officers by Srikakulam and Chittoor Districts to permit the Centre to undertake the study – ORDERS – ISSUED

Ref: Rc. No. DCS-CESS/92/2015-16; Dated 04.05.2015; Prof S. Galab, Director, Centre for Economic and Social Studies, Nizamiah Observatory Campus; Begumpet; Hyd – 500 016

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ORDER:

On the basis of the proposal submitted by the Centre for Economic and Social Studies, Nizamiah Observatory Campus; Begumpet; Hyderabad, through reference cited, the Commissioner of Health and Family Welfare, Andhra Pradesh, Hyderabad is pleased to accord permission to under take the study on Time and Mission Study, Management of workload and work pattern among Public Health Functionaries. For this purpose, the permitted organization will collect relavant data from the fuctionaries of Health Department and Women Development & Child Welfare Department in the Srikakulam and Chittoor districts. The relevant data may be collected from the MPHA (M), (F); ASHAs and other sections of functionaries from WD&CW Dept i. e. AWW etc. The data may be collected over a period of one month in every district. Further a detailed interview has to be taken from DM&HOs, Srikakulam and Chittoor Districts in the AP State.

In view of the above, the District Medical & Health Officer, Srikakulam and Chittoor districts are hereby requested to permit the organization to undertake their study in your district as proposed by the firm and necessary maximum cooperation and coordination

Sd/- Lav Agarwal, IAS
Commissioner of Health and Family Welfare

// ATTESTED //

Additional Director (MCH)
for Commissioner of Health and Family Welfare

To

The Director, Centre for Economic and Social Studies, Nizamiah Observatory Campus; Begumpet; Hyderabad – 500 016

The District Medical & Health Officer, (1) Srikakulam and (2) Chittoor

Copy to Dy. Director (DEMO), O/O CH&FW, AP, Hyderabad

LETTER FROM CHITTOOR DMHO TO RESPECTIVE SPHOs AND PHC MOs

OFFICE OF THE DIST. MEDICAL AND HEALTH OFFICE, CHITTOOR

Rc.No.739/SPL/DPHNO/2015 Dated:03-09-2015.

Sub:- CH&FW, AP, Hyderabad – Medical & Health, Chittoor – Proposal a study on Time and Mission Study, Management of workload and work pattern among Public Health Functionaries by Centre for Economic and Social Studies, Nizamiah Observatory Campus, Begumpet, Hyderabad -Permission Accorded-Reg.

Ref:- 1. Letter Rc.No. 1077/Addl. Director MCH/CESS-STUDY/2015, Dated: 27-08-2015, of the Division for Child Studies, CESS, Hyderabad.
2. Proceedings Rc.No.0177/ADDL DIR (MCH)/CESS – SUDY/2015, Dated: 21-05-2015, of the Commissioner of Health and Family Welfare, A.P, Hyderabad.

&&&&

In pursuance of the order issued in the reference cited above, a team of Centre for Economic and Social Studies Hyderabad will be visit the following PHC's and Sub Centres to Study of Management of Workload and Work pattern among Public Health functionaries as follows:

S.No	Name of the CHNC/ PHC	Name of the Sub Centre	Period
1.	CHNC, P.KOthakota, PHC, Thalapulanenivaripalle	Patoor, P.Kothakota, Rangampeta, Thalapulapalle	September 2015
2.	CHNC, Sathyavedu, PHC, Dasukuppam	Ambakkam, Kannavaram, K.N.Peta, Dasukuppam	September 2015

Hence, the Dy. DM&HO's of P.Kothakota and Sathyavedu, Chittoor Dist. The Medical Officers of the PHC, Thalapulanenivaripalli and PHC, Dasukuppam are hereby instructed to permit the organization to undertake their study in your PHC, as proposed by the firm and necessary maximum cooperation and coordination.

8/9/15

Dist. Medl & Health Officer,
Chittoor

Copy to the Dy. DM&HO's, of CHNC, P.Kothakota and Sathyavedu, Chittoor Dist.
Copy to the Medical Officer, PHC, Thalapulanenivaripalli and Dasukuppam.
Copy to the Division for Child Studies, CESS, A.P., Hyderabad.
Copy submitted to the Commissioner of Health and Family Welfare, A.P., Hyderabad for favour of information.

LETTER FROM SRIKAKULAM DMHO TO RESPECTIVE SPHOs AND PHC MOs

Office of the District Medical & Health officer :: Srikakulam District

Rc.No. Spl / DM&HO / 2015 Dated: 01/08/2015.

Sub: Medical & Health Srikakulam – Study of Management of Work load and Work pattern among Public Health functionaries by Centre for Economic and Social Studies Hyderabad – Study of PHC Borivanka and PHC Kusimi between 03rd to 22nd of August 2015 – Instructions to cooperation and coordination to the Study team – order issues.

Ref: Proceedings Rc. No. 0177 / Addl. Director MCH / CESS/STUDY/ 2015, dated 21/5/2015 of the Commissioner of Health & Family Welfare, Andhra Pradesh Hyderabad.

-oOo-

In pursuance of the order issued in the reference cited above, a team of Centre for Economic and Social Studies Hyderabad will be visit the following PHCs and Sub Centres to Study of Management of Workload and Work pattern among Public Health functionaries as follows:

Sl.No	Name of the PHC	Name of the SC	Date of study
1	Borivanka	P.K. Palem Kusumpuram Bejjiputtuga Borivanka	03/08/2015 To 08/08/2015
2	Kusimi	Chinna Kamba Goidi Shambham Kusimi	10/08/2015 To 22/08/2015

Hence the Dy DM&HOs of Kaviti and Seethampeta, the Medical Officers of the PHCs Borivanka and Kusimi are here by instructed to permit the organisation to undertake their study in your PHC as proposed by the firm and necessary maximum cooperation and coordination.

3/8

District Medical & Health Officer,
Srikakulam.

Copy to Dy DM&HOs Kaviti and Seethampeta.

Copy to Medical Officer, PHC Borivanka and Kusimi.

Copy submitted to the Commissioner of Health and Family Welfare, AP, Hyderabad. for favour of information

PERMISSION OF THE COMMISSIONER FROM THE DEPARTMENT OF HEALTH, MEDICAL AND FAMILY WELFARE, GOVERNMENT OF TELANGANA

GOVERNMENT OF TELANGANA

From
The Commissioner of Health& Family Welfare,
Sultan Bazar,
Koti, Telangana State,
Hyderabad.

To
Prof. Galab, Director,
Centre for Economic and Social Studies ,
Nizamiah Observatory Campus ,
Begumpet, Hyderabad-500016

Rc.No.4508/PPPTS/2015 **Dt.05.06.2015**

Sub: CH&FW- TS - Proposal for a study on Time and Motion Study, Management of workload and work pattern among Public Health functionaries by centre for economic and social studies - Permission accorded – Reg.

Ref: 1.Lr No.DCS-CESS/93/2015-16 Dt.04.05.2015 from S.Galab, Director Centre for economic and social studies.

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I am to inform that, you have requested this office to accord permission for undertaking a study on: "Time and Motion: Management of workload and work pattern among Public Health Functionaries" in Medak district on pilot basis and main study at Khammam.

Accordingly, you are permitted to carry out a study on pilot basis at Medak district and main study at Khammam district and submit the detailed report to this office and indicate the areas where the improvement is required.

The District Medical and Health Officers, Medak and Khammam districts are requested to extend the cooperation to M/s Centre for Economic and Social Studies, Hyderabad for carrying out the study.

Sd-
Commissioner of Health and Family Welfare

"Attested"
Special Officer (PPP)

Copy to the District Medical and Health Officers, Medak and Khammam districts.

LETTER FROM KHAMMAM DMHO TO RESPECTIVE SPHOs AND PHC MOs

OFFICE OF THE DISTRICT MEDICAL AND HEALTH OFFICER:: KHAMMAM

Rc.No. 2362/SOFW/2015 Date: 05-09-2015.

Sub: - Facilitating Time & Motion study Management of work load and work pattern among Public Health Functionaries – reg.

Ref: - 1. Division for Child studies C.E.S.S (Centre for Economic & Social studies) Begumpet, Hyderabad Lr. No. DCS-CESS/195/2015-16, Dt:24-08-2015.
2. Permission accorded by CH & FW, Hyderabad, Rc.No. 4508/PPPTS/2015, Dt: 03-06-2015.

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Through the ref. 2nd cited, The Commissioner for Health & Family Welfare, Telangana, Hyderabad has accorded permission for undertaking a study on "Time and Motion " Management of work load and work pattern among Public Health Functionaries in Khammam district to M/s CESS, Hyderabad.

For the purpose of undertaking the project activists M/s CESS Selected the following PHC's with the following specific Objectives during the period Sep – Oct 2015.

1. To understand How ANM's, MPHW's and ASHA's plan and execute their work and the time spent in each activity focused their daily practice in the field and the facility.
2. To analyze the perception of Mandal & District level Officials about Motivation and Priority given by the these front line Health workers in line with their Job Description.

(i) PHC Singareni
Sub centres : Madhanam, Manikyaram, Sitarampuram and Singareni.

(ii) PHC Mudigonda
Sub Centres: Banapuram, Kamalapuram, Venkatapuram and Mudigonda.

The Medical Officer of Singareni & Mudigonda PHC's are requested to extend the Co-operation to M/s Centre for Economic & Social studies, Hyderabad for carrying out the study.

District Medical and Health Officer
Khammam.

To,
The MOs of PHC. Singareni & Mudigonda

1. Copy to SPHO's, CHC's of Yellandu and Nelakondapally.
2. Copy to the Director, Centre for Economic & Social Studies, Nizamiah Observatory campus, Begumpet, Hyderabad for information.

PERMISSION LETTER FROM DIRECTOR, DEPARTMENT FOR WOMEN, CHILDREN, DISABLED AND SENIOR CITIZENS, GOVERNMENT OF ANDHRA PRADESH.

From
Smt. P. Usha Kumari, I.A.S.,
Director,
Women Development &
Child Welfare Department of A.P.
Hyderabad-500 038.

To
Prof. S. Galab,
Director,
Centre for Economic and Social Studies,
Nizamiah Observatory Campus, Begumpet,
Hyderabad – 500 016,
Telangana State.

Lr.No.2453/MIS/2014, Dt.18-06-2015

Sir,

Sub:- Prof. S. Galab, Director of Centre for Economic and Social Studies, seeking Permission for time at District Level in A.P – reg.

Ref:- Lr. No. DCS-CESS/70/2015-16, dt: 12-05-2015 from Prof. S. Galab, Director of CESS received 15/06/2015.

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In response to the ref. cited, The Centre for Economic and Social Studies, Hyderabad is permitted to conduct study at district level in the State of Andhra Pradesh in Srikakulam and Chitoor districts as per the request of Prof. S. Galab, Director of Centre for Economic and Social Studies, Hyderabad.

In this regard, the Project Directors, DW&CDA of Srikakulam and Chitoor districts are requested to provide the information as required by Division for Child Studies, Centre for Economic and Social Studies.

Yours faithfully,
Sd/- P.Usha Kumari
Director

For Director

Copy to
The Project Directors, DW&CDAs Srikakulam and Chitoor district for information.

PERMISSION LETTER FROM THE DIRECTOR, DEPARTMENT OF WOMEN DEVELOPMENT AND CHILD WELFARE, GOVERNMENT OF TELANGANA

GOVERNMENT OF TELANGANA

From
Smt. Viziendira Boyi, I.A.S.,
Director,
WD&CW Dept.,
Telangana State,
HMDA- Swarna Jayanthi Complex,
II Floor, Ameerpet, Hyderabad.

To
The Director,
Centre for Economic and Social Study (CESS),
Begumpet, Hyderabad.

Lr.No.3030/ICDS-1/2015, Dt: 04.08.2015

Sir,

Sub: WD&CW Dept. - ICDS Scheme - CESS - Permission for Time & Motion Study by DCS - Joint initiative between UNICEF and CESS –Permission granted - Reg.

Ref: Lr. No. DCS-CESS/176/2014-15, Dt: 01.07.2015 from the Director, Centre for Economic and Social Study (CESS), Hyderabad.

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In response to your letter cited, it is to inform that this Department has no objection to the proposal of carrying out Time & Motion Study (TMS) across selected ICDS Centres from Khammam Dist. and an initial pilot study in Medak Dist. of Telangana State.

It is further informed that instructions were issued to the Project Director, DW & CDA, Medak and Khammam to co-ordinate with the Division for Child Studies (DCS) - A joint initiative between UNICEF, Hyderabad and Centre for Economic and Social Study (CESS).

This is for information.

Yours faithfully,
Sd/- Viziendira Boyi
Director

For Director

Prof. S. Uday
Prof. P P Reddy

[i]McCambridge, J., Witton, J., & Elbourne, D. R. (2014). Systematic review of the Hawthorne effect: New concepts are needed to study research participation effects. *Journal of Clinical Epidemiology*, *67*(3), 267-277. http://doi.org/10.1016/j.jclinepi.2013.08.015

Fernald.D et.al. (2012): An assessment of the Hawthorne Effect in Practice-based research, Journal of the American Board of Family Medicine, 25(1), 83-86 http://www.jabfm.org/content/25/1/83.full

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